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ORIGINAL ARTICLES.

(1) FOR CHRONIC PULMONARY INVALIDS.

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FOTHERGILL, in his "Manual of Dietetics," says: "With modern knowledge of digestion and body requirements, with a more perfect grip of the essential wants of the phthisical—of the importance of arresting all outgoings, as well as of the introduction of food at once digestible and nutritive—the prospects of the phthisical are much brighter than they were at the beginning of the present century."

Hygiene and dietary, which are of so much importance to the human race, become laws of health, the basis of happiness and prosperity, for the class of people here intended to be reached. This class, during some portions of their lives, constitutes a larger portion of the human family than is ordinarily believed.

The vital statistics of "consumption" are very unreliable and deceptive in giving any accurate conception of the extent of the disease, that is, if the blood condition of tuberculosis is meant, as it usually is, by the term consumption. It is assumed to be recognized that many other diseases may also be induced by the blood perversions and impoverishments (as in what we call *anæmia*, the diminution of haemoglobin), which are simply symptomatic of a known, or more often unrecognized tuberculosis. In mortuary records, the deaths from pneumonia and pleurisy, brain, heart, liver, stomach and bowel diseases are usually otherwise accounted for than as due to constitutional conditions, and the arrested cases of tuberculosis are, of course, unrecognized. So, when vital statistics attribute 13 to 14 per cent. of the world's mortality to consumption, it can reasonably be claimed that not half the number at some time affected with tuberculosis are represented in this estimate. Again, when a given section, as was the case in the State of Maine, according to the census of 1880, gives 50 per cent. of the mortality from consumption for those dying between the ages of twenty and forty, then, for such adult people, all other pestilences combined can be plainly understood to be of inferior importance to this one.

This question of *anæmia*, being closely allied with the tubercular process, is a vital one. Proof is not wanting that this condition exists even before the probably later evidence of tuberculosis—the bacillus—is microscopically demonstrated. There is undoubtedly too much procrastination, often on the part of the physician, waiting to find some

more positive evidence, as the bacillus of tuberculosis in the patient's sputum, before the recognition of real danger. The important fact as to blood state, with other evidences of the lurking enemy, needs to be investigated. Dr. Rachford, of Louisville, Ky., in the November, 1892, number of the *Archives of Pediatrics*, presented valuable conclusions on the "Anæmia of Tuberculosis." These were based on 166 blood examinations of convent girls and seemed to clearly establish the following facts: First, that there is a relationship between "family tuberculosis" (inherited tendency) and anæmia; second, that, of those affected, the glandular cases (the involvement of the lymphatics indicating a much worse blood condition than when the disease is limited to the lungs) gave a largely decreased amount of haemoglobin in the blood—i.e., less than did the purely lung cases, though in those the diminution was considerable; third, that the anæmia of the pre-tubercular condition is probably due to "a secret or hidden tuberculosis of the deep lymphatics or other blood-forming organs," and, fourth and finally, that "pronounced anæmia, without apparent cause, is strongly suggestive of concealed tuberculosis."

This is not the place to present other proofs that the beginning of tuberculosis does not date with the discovery or known existence of the bacillus of that disease. There is always a previous susceptibility, caused, probably, by a vitiated state of the body fluids, which produces a favorable soil or climate for the growth of the bacillus in man. It is a delusion to ignore the blood state (even though we cannot explain it) which must precede the discovery, not to mention the existence of the germ. The whole human race would perish of tuberculosis were it not for the resistance to it which healthy blood opposes. It is the *living cell* which must be depended upon to maintain the supremacy and integrity of the human body. To saturate that body with germicidal substances to keep away disease, produces, to say the least, a questionable state of health, even if it were possible to do so, which is extremely doubtful.

No, the life (health) is in the blood, and the blood depends for its perfection, on the proper selection and assimilation of food. Selection is necessary because, in defective states of the system, some foods are unassimilable, and assimilation must be secured, because, otherwise what is eaten becomes a source of poison to the blood.

Again, without a healthful and bountiful supply of oxygen to the blood, the diseased conditions resulting from this defective or deficient assimilation would be always disastrous. But, thanks to kind nature, her provisions for every warfare are

ample, if we only have the intelligence to appreciate them.*

Suppose it is admitted that the perfection of the blood depends upon the proper assimilation of food, then a pertinent inquiry to be answered is: What relation does indigestion bear to consumption? Extended experience seems to confirm the statement that either catarrh of the stomach and intestines, or dyspepsia, are very often precursors to chronic pulmonary ills. This being the case, how can they be explained, and thus prevented?

A good understanding of the physiological facts pertaining to normal digestion is necessary to the correct appreciation of those pathological states which invariably accompany abnormal digestion. A great deal happens in the stomach that this patient and much abused organ does not complain of, and so we are mentally unconscious of our perfect or imperfect digestion. "The healthy stomach, when empty, is contracted, and its surface is pale, its vessels small and tortuous. When, however, food passes down the oesophagus and is received into the stomach, the pink, velvety appearance of the mucous membrane is seen to give place to a brighter, slightly darker shade; the vessels dilate and become more full of blood, and the secretion of gastric juice commences.

"Experiments have further shown that the same results follow upon the introduction of food through an external opening, or upon stimulation by means of a smooth body introduced from without and gently rubbed against the inner surface of the stomach. If, however, the stimulus be carried to such an extent as to cause irritation, effects exactly the opposite of those described above are produced, namely, contraction of the vessels, suppression of the gastric juice, and the secretion, in its place, of a quantity of mucus."†

This physiological process is of great importance in our present inquiry, because it is undoubtedly in the stomach that that "irritability" commences which afterward, farther along in the alimentary canal, through mal-assimilation, helps to complete the condition of dyspepsia. The irritability is there, whether the cause in the stomach be bulky or improper food, defective or deficient gastric juice, innervation or excessive fermentation producing gas, or other chemical action.

The question how impoverished states of the blood may favor this condition of irritability is not so difficult to explain to one who understands the circulation and the varying effects of changed or deficient blood tension or supply in the internal organs. But even to the uninitiated layman it is possible to explain the converse of the above—i.e., how this irritability and inefficiency of action represented by dyspepsia may lead to lung disease, and so often be a cause of it. Undoubtedly the two go hand in hand, and are inter-dependent on each other; but indigestion, once inaugurated

and afterward harbored by sins of commission in eating and drinking, must lead, through the defective assimilation of food induced, to a defective supply and quality of blood sent to all important organs. The defect in the blood will be noticed in the lungs particularly, where the vulnerability to atmospheric influences will be manifested. This dyspepsia is not usually a cyclone, but a steady wind—a process which, through the resulting lack of proper nutrition, makes itself felt in all parts of the body, and the sufferer is consequently retrograding in physical stamina. Meantime the mal-products, developed by the decomposition of ingested foods which have not undergone proper conversion into assimilable forms because of indigestion, are practically poisoning the whole system through their absorption into the general system.*

The acid and fermenting states of the blood induced, the torpid peripheral circulation and the crowding of the congested blood to the overburdened internal organs, seem to be correlated. The usually defective skin elimination and the deficient respiratory activity are also noticed in these pre-tubercular subjects. That condition of the body's circulating medium has been reached and is maintained in the lungs, which is most favorable for infection. Hence, by preference, the pulmonary tissue presents the most convenient and most congenial lodging house for the germs, which lurk nearly everywhere in the inhabited atmosphere. Then, in the lungs we find the sequel of a process which dates back to mal-assimilation, chiefly in the duodenum and the balance of the small intestines, previously induced by indigestion in the stomach. Great emphasis is given to these considerations by the rareness of recovery in cases of tuberculosis where persistent gastric disturbances exist. The form of tuberculosis which seems to so evidently start in dyspepsia and mal-nutrition is most serious, and its symptoms—the loathing of food of any kind, and especially of fats and nitrogenous foods, which are most needed—show the importance of first attending to the alimentary canal.

* If to any one, probably to Dr. J. H. Salisbury, now of New York, the credit is due for announcing that the chief mal-product which is to blame for all this evil in the blood is an acetic acid fermentation. Later, Dr. Ephraim Cutter, in his "Clinical Morphologies," nicely demonstrates to his own satisfaction, by micro-photographs of high magnifying power studies of tuberculous blood, that the spores of "vinegar yeast" exist in the blood plasma and in the white corpuscles, which corpuscles we know are in excess of the red in anæmia and leucocythaemia. To the same discriminating judgment, also, may be submitted the late claim of Dr. R. L. Watkins, that he has found the source of tubercular infection in the previous existence in the blood of "*the third blood corpuscles*." To verify the causative relation of these so-called "corpuscles" to tuberculosis, he was willing to have himself inoculated with bacilli tuberculosis, which he did, his own blood, as he claimed, being "free from these corpuscles." The difference between this microscopic evidence of immunity and that of Salisbury and Cutter is not yet clearly shown. The whole extremely interesting and promising subject is in a stage of development, waiting for the more conclusive report of that analytical and differential histologist (as yet unnamed) who should receive honors second only to Koch himself.

* For further points on this matter, reference is made to the companion of this essay, "Exercise for Pulmonary Invalids," the object of which was the thorough oxygenation of the blood as a prevention of disease.

† "Food and Dietetics," Vol. XI., "Wood's Medical and Surgical Monographs," by R. W. Burnet, M.D.

If, in discussing this question of "foods" in consumption, we are compelled to take sides with or against the vegetarians, then I am ready to say that a considerable experience leads me to favor a mainly meat or nitrogenous diet, as preferable for most invalids. The arguments in favor of an animal diet are based—

(1) Upon the animal origin and constituents of milk.

(2) The carnivorous nature of human teeth. This may indicate a mixed diet; but, twenty out of the thirty-two total teeth of the adult man being carnivorous in type, two-thirds of his diet would seem to be indicated as more appropriately carnivorous or meat.

Whole wheat is rich in vegetable albumen, gluten (10 to 35 per cent.), phosphate of lime and fibrin, with a form of starch easily converted into fat and heat. This, then, is the best form of food, properly prepared, for the other one-third of the human diet. Starch in the whole wheat is not in the excessive proportion found in other cereals. In this wheat, it is .57; in rye, .64; oats, .65; barley, .66; corn, .67; rice, .88; while in white flour it is .754. How, it may be asked, has the flour gained its 18 per cent. more starch in the process of milling? In Johnson's "How Crops Grow," we find that, in 1,000 parts of substance, wheat has an ash of 17.7 parts; flour, 4 parts—a loss of over three-fourths. Wheat has 8.2 parts phosphoric acid; flour, only 2.1 parts. Wheat has .6 lime and .6 soda; flour, only .1 of each. Further, wheat has 1.5 sulphur, .5 sulphuric acid and .3 silica, while flour has none of these. Really, it seems as though the refinements and thoroughness of milling have been of great damage to the human race, by taking from wheat food (flour) these valuable salts.

(3) Man's stomach is not like that of the herbivorous, but like the carnivorous animal. In structure and function, it is designed for the digestion of lean meat. It is suited to the disintegration of muscular fibre and the dissolving out of musculin and albumin fit for absorption, in which preparation the gastric juice plays an important part. This is a commencement of the process, which is completed further along, through the work of secretions from the liver, pancreas and the intestinal juices.

(4) The constituents or qualities of which the human body is composed, it is claimed, are best supplied by that kind of food which contains the same ingredients in the nearest to an assimilable form, *i.e.*, water, musculin, albumen, lime, fibrin and fat.

(5) The natural craving of human beings for lean meat is a strong indication of its need. This has always been marked, and a large portion of human beings have always been known to live on meat.

It is claimed that lean meat, properly cooked, is prepared in the stomach for digestion and assimilation sooner than is starch food.

To judge what foods are best, the stomach must be in a normal state, *i.e.*, free from acids, fermentations and catarrh or excessive mucus. Drinking hot water usually accomplishes this desirable end,

cleanses the stomach and favors healthy action of the skin, bowels, liver and kidneys. If objection to hot water is insurmountable, weak tea or weak bouillon may be substituted. At the same time, the rules of exercise, bathing, mental diversion, sleep, etc., should be obeyed, and the bad results of too much and too fast eating and an unsuitable diet should be avoided. Assimilation, not quantity, is the guide. Lean beef is the tissue builder *par excellence*, and the highest muscular development and greatest powers of endurance are always sought, in training athletes, through the agency of the lean beef diet.

On the other hand, starchy food and sweets tend to produce acidity, fermentation, intestinal catarrh, anaemia, and to favor a condition of blood more conducive to consumption. The use of the lean meat diet in disease is based upon the fact claimed that it produces the maximum amount of nutriment with the minimum of digestive effort. It is claimed that microscopic investigation of the blood under a lean meat diet demonstrates the blood-making tendency of the same. The symptoms which sugar and starch, predominating in the diet of little children, produce, are those so often associated with scrofula and consumption, *i.e.*, catarrhal tendencies, skin and glandular affections, capricious appetite, catarrhal and acid conditions of the bowels, protuberant abdomen and deficient muscular tone. These tendencies are successfully averted by proper and systematic feeding of children on milk, eggs, beef, and whole-wheat flour or coarse-grained cereals.

It is claimed that an excess of starch and sugar in the diet favors gastro-intestinal catarrh, which disease, in turn, is best influenced by the beef and hot water regimen.

Defective digestion, whether from physical ills or unsuitable nutriment, leads to or goes with abnormal blood and with mal-nutrition, which, in turn, account for the failure of vital action and of the organic tissues to sustain a healthy relation to the human economy. Hence, the foundation of consumption may and probably does lie in the defective digestion at the start.

* * * * *

A practical application of the principles of dieting to the individual's needs is of great importance, whatever system of feeding is decided upon. The usual haphazard experimental method is founded on ignorance—if it has any foundation—and is not a success by any means. There is not time in this paper to present and discuss all the claims of the great variety of specially prepared forms of food on the market. They are largely for use in the feeding of infants. There are some of them, however, which we may select as additionally suitable for grown people, for, in many instances of adult indigestion, we have to consider such an extreme of enfeeblement or such an entire cessation of the functions of digestion and assimilation that it is the best plan to give up all solid foods and go back to first principles; in other words, it is preferable to commence over again on the basis of infant foods, which are more or less prepared for immediate absorption. This

consideration shall determine the policy to be pursued in this practical presentation of our subject.

We will commence with the feeblest and most serious class of cases, and work back towards perfect digestion as a basis of health, which is the good we are seeking.

This reversal of the natural order of sequence of disease suggests the following arbitrary classification:

1. *The terminal dyspepsia of tuberculosis.*
2. *The initial dyspepsia of tuberculosis.*
3. *The preventive dietary of the supposedly healthy, or, if preferred, the preventive dietary of the possibly infected.*

First: I have already referred to a very unpromising class of cases characterized by persistent gastric disturbance. There comes a time—which is earlier or later with different patients and sometimes seemingly dependent upon the acuteness of the attack—when the individual's resisting power is so feeble, and the blood so charged with the tubercular virus, that apparently the nervous influence which governs the assimilation of food is overcome, and the digestive process is at a standstill. There is loathing of food, especially of fats or oils, and an abnormal desire for cold drinks, starchy foods, sweets and acids, which, through the increased fermentation produced, only add to the imperious fire that is slowly consuming the body.

These severer classes of cases are, or surely ought to be, under the strict advice of the physician. It is for his consideration and adoption that the following regimen is suggested, as a sample of what ought to be done, and not as a complete account of all that can be done. A decided and radical change in diet should be made at once. The doubt about the digestion of the casein of milk may, perhaps, shut off from use the ordinarily most natural of invalid's food—cow's milk.*

The extreme of caution, likewise, dictates either (1) a predigested liquid diet or (2) a wholly nitrogenous regimen, until it is certain that the much needed fats and starch cereals can be well taken care of.

1. The predigested liquids are such as the Arlington Chemical Company's "Liquid Peptoneoids," or Fairchild Bros. & Foster's "Panopepton," a prepared and digested extract of beef and bread. One of these two excellent preparations should be given according to the directions on the bottle, and alternated every two hours during the day, and once each at night (or in all, say, four times each in twenty-four hours), with Mellin's Food, cooked, at first, perhaps, without

* Sometimes milk may be made to agree, when otherwise it would not because of its constipating tendency, or inability of the patient to digest it, by combining it with Seltzer water, in equal parts, or by adding a little salt to the milk, taking some Hunyadi water with the morning portion, or peptonizing it. Though for some persons milk is a most appropriate constituent of every meal, there are many to whom its generous or even moderate use is not at all suited. I therefore insist that it must be first definitely known that milk agrees and is digested, does not leave a furred tongue and a torpid liver, before milk-drinking is incorporated in a given invalid's diet.

milk or with one-half the portion prescribed on the package. Mellin's Food, a selected and predigested combination of wheat and barley, is an excellent preparation in the form of a meal, in which digestion is carried so far (the starch being all converted into malt sugar or maltose and dextrine) that fermentation in the stomach is not only prevented, but the after absorption is easily accomplished. Mellin's Food is thought to aid in the digestion of cow's milk, with which it is usually given, and in which combination it contains all the food elements the human system requires. If it is too sweet in taste, use proportionately more salt in preparation. I have seen many cases of dyspepsia recover on a diet of Mellin's Food and very little of other food or of medicine.

2. The desirable nitrogenous regimen in liquid form can best be obtained in the expressed juice of underdone broiled steak. The juicy round steak is preferred, and it should be broiled over hot coals very lightly on the two sides, and then, if necessary, cut in small enough pieces to go into the receiver of a meat juice press. An Osborn No. 1, or Bartlett No. 5, can be obtained at the hardware store, if a cheap machine is desired, but the one or two larger sizes give proportionately greater compressing power—all the way from 1,000 to 3,000 or more pounds—sufficient to expel all the nutriment there is in the meat. This expressed nutriment looks like blood,* and is chiefly in the form of albumen, which must not be heated above 100° F., for this coagulates and for the most part destroys it. That is what is the matter with over-broiled steak, and, as for ordinary "beef tea," its use ought to be abandoned. A dessert to two tablespoonsfuls of this juice, well salted, diluted with warm water as preferred, and taken every two hours will sustain life, being almost immediately absorbed, and at the same time giving entire rest to the digestive function. For variety, it can be alternated with Mellin's Food, or later on, with other prepared foods, as Nestle's Food, Ridge's Food, or Imperial Granum. The stricter diet thus laid down may be adhered to from one to four weeks, when, if the appetite and digestion warrant the change, the patient can be allowed to pass on to the diet specified for our second classification, i. e., *the initial dyspepsia of the tubercular.*

As already imperfectly explained, the coincidence of dyspepsia, with commencing, latent or established tuberculosis, is so striking (whether the indigestion be the cause, as Dr. Salisbury claims, or the accompaniment of the infection, as seems more reasonable to believe) that it is impossible to conceive of a more important subject for study than the relation of food to this disease.

It is unfortunate that previous and in a measure erroneous conceptions of tuberculosis have so im-

* There is a notion abroad that drinking warm beef blood fresh from the slaughtered animal is of great benefit. I have never seen any good result; but, on the contrary, several consumptive's stomachs upset by this practice. But the rectal injection of fibrinized blood, say, two or three ounces twice a day, is strongly recommended by Dr. Andrew H. Smith, of New York, and others.

bued the writings of Dr. Salisbury, the father of the meat pulp and hot water diet theory. Yet it must be understood that Dr. Salisbury worked and wrote before the close association of a germ with tuberculosis was demonstrated by Prof. Koch. When in the dark about this scourge of mankind, it is rather creditable to the medical profession at large that they did not admit Dr. Salisbury's claim that he had found the cause for all diseases except those arising from "injuries, poisons and infections." He states in the preface of his book, "The Relation of Alimentation and Disease," "I started in without theories, without prejudices," yet his premise seems to have been that the abnormal states underlying consumption were "paralytic," whatever that means, and chemical effects seem to have been substituted for what we now know to be and to have been bacillary results.

There are other reasons why meat is pre-eminently the best diet in the dyspepsia of tuberculosis than that meat (because of the absence of starch and sugar), does not ferment, though that fact is of great value. It is the failure of the nervous force which has to be met by this nerve-energy-giving food, and the more we study consumption the more we must recognize that the wasting of nerve power is a most important factor in this process of decay. It is mainly from albuminoids that the system originates and is renewed, and albumen is not made by digestion, but must exist already in the digested food. Though albumen largely enters into the composition of other foods, it is in the pulp of meat that it is found in its freest state. Besides, the power to assimilate other foods is much impaired or lost, and we should not forget what Bartholow says, that "it is not the quantity swallowed, but that digested and assimilated, which contributes to the nourishment of the body."

Hence, the meat pulp and hot water diet has proved to be very beneficial in the temporary or more persistent attacks of indigestion incident to incipient and even long established tuberculosis. This diet should be continued long enough and not be too much modified by other foods to lose the desired result, namely, the perfect assimilation of what is taken.

Of course beef-steak can be scraped, which is laborious, or an expensive apparatus like Salisbury's for extracting the pulp can be used. A practical and economical way to get the pulp free from the fibre, tendons, and fat, is to buy a medium sized Hale meat-grinder (size No. 2 will answer for a family of two to four persons). The meat is run through this grinder six to eight times, and each time what is not wanted catches on the knife between the revolving cylinders and is removed. Finally something more than half of the weight of meat used is obtained of pulp. This can be suitably flavored, as with horseradish, and eaten lightly cooked, or nearly raw. A good way is to press the pulp into cakes, not too hard, salt and pepper them to taste, and lightly and quickly broil over hot coals, so that the center remains red and juicy. This meat, served in conjunction with or preceded by the sipping of a cup

of hot water, is easily dissolved and assimilated. Immediately, or after a variable time, according to the severity of the case, this plan can be combined, or, perhaps, better alternated, with the use of cereals, as fresh Pettijohn's Breakfast Food, Imperial Granum, cracked wheat and cream, soft poached egg on toast, etc. Or, between the meals of the meat pulp, a raw egg dropped in a wine glass of dry sherry, or the following combinations of an egg and Mellin's Food may be tried: One egg, two tablespoonfuls sweet cream, two teaspoonfuls sugar, one tablespoonful Mellin's Food and one half-pint milk. Beat the egg well, add the cream and sugar and beat again, then turn onto the Mellin's Food previously dissolved in a little hot water, mix thoroughly and add the milk. This may be salted or otherwise flavored, as desired. Another way to take the pulp of meat is to season it and spread it in thin layers between thin slices of bread.

An excellent form of food to use separately or in conjunction with the meat diet is the recent invention of a Denver gentleman, namely, "The Colorado Shredded Wheat Company's" product of "Shredded Whole Wheat." It consists of the preserved ingredients of the whole wheat berry (none of it excluded by the usually overdone process of sifting), which, after a thorough boiling, is shredded by a machine specially designed for the purpose. This makes a light, fluffy material, which is eaten with cream or variously cooked. The usual custom is to bake it in cakes to be used as bread, or warmed over to be served with cream. Many articles of food, like pie crust, are made of this material, light and porous, without baking powder or shortening. If not consumed within forty-eight hours, this food is roasted, after some peculiar fashion unknown to me, and made into a very palatable coffee. The advantage of this beverage is that its nutrient elements are thus substituted for the stimulant effect of ordinary coffee or tea, while at the same time it is as good as the hot water previously found to be so beneficial, and preferable to cold drinks taken with meals.

The use of stimulants is, to be sure, a mooted question with many well-meaning and earnest people, but the unprejudiced physician sees a positive benefit result from a weak invalid's taking a glass of ale or porter twice a day, or for a sleepless one to have a hot milk punch or whiskey toddy in the middle of the night.

Fothergill, in his "Handbook of Treatment," strongly recommends the following, "rum and milk in the morning ere dressing," "take a half pint of new milk and add to it an egg, a teaspoonful of powdered sugar, some grated nutmeg, and one or two teaspoonfuls of good old Jamaica rum; stir all together well and let it be taken by the patient in bed." "It is desirable," he says, "that a little further rest in bed should precede the process of dressing."

There are, to be sure, other forms of solid and liquid food which will, like the above, be good to vary the strict meat diet with, as soon as the time shall have arrived that normal assimilation takes place, and the now usually normal craving for other and more food is experienced. The chief

consideration and care should be that these substitutes to be experimented with should be easily digested, prepared in an appetizing way, and not too largely represented by the starch and sugar elements of food. For the same reason, fruits, like bananas and melons, have a doubtful place with any meal, though oranges, apple sauce, pickles, nuts and cheese may be sparingly allowed. Thus, by degrees, the six meals a day, mainly of nitrogenous food, may be merged into the three principal day meals usually taken by the healthy, the heartiest—dinner—coming by preference for invalids, when possible, in the middle of the day. Even then the broiled pulp of meat will go well for breakfast, or breakfast and supper, and for something warm at bed time a goblet of Mellin's Food, two tablespoonfuls of the meal to the goblet of equal parts hot water and milk, answers quite well and conduces to a good night's rest, if, for given reasons, a cup of hot bouillon, a milk punch, or sherry and egg is not preferred, and as suitable to the feeble digestive powers. Thus it is the object of this method, in one week to one or more months, to work up to the third classification of diet, namely:

The diet for the supposedly healthy. This diet, to be preventive of tuberculosis, where once it has existed or become latent in the system, must be sustaining to the powers of life, to the end that a vigorous warfare be kept up for the supremacy of the living cell. While the nervous system is sustained by a plentiful mixture of nitrogenous (meat) and phosphatic (fish, oysters, etc.) food, the wasting incident to the feared disease must be prevented by an abundance of the hydrocarbons, of which fats and oils stand at the head. At the same time, assimilation should be secured and promoted by something warm or warming with every meal, as chocolate, cereal food coffee, hot milk or water, ordinary weak coffee or tea, or, at dinner, a single glass of light wine.

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If a person is habitually constipated, draughts of hot water night and morning, fruits (figs, etc.) and the coarser vegetables, combined with the diet, are of service. Reference must be made to the companion paper to this, on "exercise," for rules as to care of the body, regularity in habits, chest rubbings, forms of exercise, etc. It must also be explained that the foregoing regime may be too largely composed of animal food for many healthy people. Especially is this true for those advanced in life. Then there is naturally a falling off in the ability to take care of nitrogenous food, while at the same time the capability of obtaining and the incentive to enjoy a hearty cuisine has increased. Vegetables and fruits seem to be more appropriate foods for these, while with very old people there is a natural tendency to return to the liquid diet of infancy. Climate, seasons and occupations, too, make a great difference in the proper choice of foods. The indication for animal food (meats and oils) in cold weather is so much more imperative than the summer time, that the warmest season of the year, (notwithstanding the ability and incentive to be then

much out of doors) is not so favorable for the kind of diet which is best for the consumptive. Here is a strong argument in favor of accepting cold as an indispensable element in the preferable climate for the phthisical invalid.*

Apply the same rule to the consumptive's diet, and some, but a lesser, variation to fruits and starchy foods would seem to be advisable, because we can never lose sight of the greater proportionate waste of tissue and the poverty of blood in this class.

It has been said that "the majority yield to inclination rather than be guided by intelligence and judgment." Hence the great importance of this food selection question to the consumptively inclined, whose inclinations are so often pulling against their better judgments. The author will feel amply repaid if the foregoing plan of battle, though imperfectly presented, shall aid invalids to conquer or keep this foe—tuberculosis—in check, and the doubtfully affected to follow a line of duty which shall enable them to avoid the necessity of an actual contest.

DENTITION: ITS TROUBLES.†

BY BEN. H. BRODNAX, M.D., BRODNAX, LA.

I AM fully impressed with the idea that dentition is, *per se*, not causative, necessarily, of any disease. That it is a natural process, the same as the growth of the hair or nails.

That it may intensify, or add to an existing trouble, such as enteritis, is not to be doubted.

That troubles, many of them, do come on cotemporary is also a fact, but we must look for the causes thereof outside of the dental process.

First, we have, as most intimately connected, heredity. That a good tree bringeth forth good fruit seems to be a long established fact, and the reverse is equally true. Then in the parents of the infant we must look for the controlling tendency to evil in this line. Given that perfectly healthy parents will have healthy children, with these dentition is mostly if not entirely uneventful. The predisposition of the parent is shadowed or reproduced (sometimes exaggerated) in the offspring. Scrofula, syphilitic heredity, nervous excitability, all have a tendency to produce in the parents changes which are reflected in their children. The old Romans and Greeks, who were, as a nation, greatly interested in strong men and women, used to surround their women (*enceinte*) with every comfort and with every beautiful device of form and picture, to promote vigor of body and quietude of mind. In our day the modes of dress of our women, the high pressure state of excitement, lack of careful consideration

* For further corroboration of the importance of *cold* versus *warmth*, and for facts bearing on climatic treatment, see the author's brochure, "The Preferable Climate for Consumption," and "The Rocky Mountain Health Resorts," published by Houghton, Mifflin & Co., Boston, Mass.

† Read before the Medical Society of Morehouse Parish, Louisiana, January 22, 1895.

as to diet and sleep, and the "higher culture of women" theory, have induced many aggravations in nervous diseases. While in the country this is not so much the case, still to a great extent they are here also reflected on the offspring, and are attended with unnecessary troubles. These troubles, aggravated by the protrusion of the tooth through the bone and gums, are attended with irritation, excitement, and perhaps convulsions. But otherwise it is a natural process. The animal kingdom seem to be very little troubled with cutting their teeth. It is within the knowledge of all of you of infants being born with one or more teeth cut through the gums. In my experience about three per cent. are so born.

It is also within your knowledge where an aneurism of the aorta, removed by pressure and absorption the entire ensiform cartilage, as also parts of several ribs in a man of splendid physique prior to the accident which partially ruptured the artery, and with very little if any pain. Please, right here, bear in mind that an aneurismal sac is not made of enamel.

The bony structure of the mouth in infancy is soft, and by pressure of the edge of the enamel it is by the same process dissolved and carried away; and, except for reasons previously stated (inherited super-excitability) should cause but little inconvenience.

It may be urged that the wisdom teeth, so-called, which appear late in life, are attended with much suffering. True. But at that time of life the bony formations are solid, not semi-cartilaginous, as in the infant. So, for the numerous troubles which beset the infant, we must look outside of neurasthenia. I find many of them, first, in improper food, or improper administration; second, in improper dressing; third, in neglect (wilful or ignorant).

By improper food.—The all wise Creator probably knew the best form of food for the young, and arranged for a supply of it adequate to the demand—the mother's milk.

So near is this to the fact that in the domestic animals, where they are left, by accident, without the natural supply, by the death of the mother, the deficiency is supplied from another of *same kind*, or the nearest approach to it.

But some will say, sometimes the mother's milk does not agree with the infant. Why not? If it does not it is because the mother's diet, or general health, is at fault. And right here let me say, I place but little faith in the aforesaid assertion. When I hear it I look for the reasons.

Is there any probability that a child which from pregnancy to birth nourishes by the blood of the mother, should after birth, when fed on another form of this blood, cease to be nourished by it? Or that it should disagree with it? Hardly probable.

I will admit, however, that women, like cows, differ very much in the quality of milk. While some have fat, healthy babies and are themselves rather meager as to condition (like the Jersey), others who should give the best quality because strong and robust, give that which is thin and watery (like the Durham, they are more "beefy"),

little or no cream rising to the surface on standing. I would ask those who have these half-starved breast-fed babies to deal with, to obtain a sample of the mother's milk in a two or four drachm long vial, let it stand a while and see what a tissue paper film of cream rises to the top, and how blue the body of the remainder is. It is noticeable that these robust women seldom give birth to really fat babies. The remedy for all this is artificial feeding of cream and other condensed foods, in addition to the watery supply from the breast.

Again, women are not careful as to diet after child-birth. The craving appetite often leads them to break through the strict laws of demand and supply, disordered stomach and bowels following, and may be, often is, the cause of the milk being faulty.

As distinguished a man in medical science as Dr. Fehling, of Germany, some years ago said: "The idea that the mother's milk is in any way influenced by the food she has taken is a *myth*." I cannot but think the very justly celebrated doctor had taken a little too much beer when he penned this assertion. When I tell you that for more than a month I had the best medical advice of this parish (Drs. Marable, Grey and McCright) and my own experience, in a case of severe intestinal colic, in a four months' old infant, the spells coming on at 4:30 o'clock P.M. regularly, and lasting for an hour or more, and that nothing availed to check them or mitigate the trouble until the mother, by my advice, abstained from a glass of skimmed milk ("blue John"), which she had been in the habit of drinking at dinner. The trouble ceased immediately and never returned. At least in this instance Dr. Fehling's "myth" was a most painful reality, and would convince that the mother's *ingesta did affect* the child and milk both.

Here is found one of the "troubles," and I almost invariably doctor the infant through the mother. At the same time, too frequent feeding, allowing the infant to sleep with the nipple in its mouth, are gross violations of nature's laws. Even the sow does not do that—she will leave her young in the bed and be gone an hour or two.

One of the first troubles is the coming of the teeth. As they advance the soft tissues become tumified, and are to be scarified. The simplest implement for this purpose is the finger nail. See that it is clean, and scraped thin, then cut and scrape the gums, down to the tooth, so as to destroy them. By this process they do not heal so quickly and the edge of the tooth is soon seen.

That this cutting is a great relief is true, as you have all seen how eagerly the little fellow presses against the finger during the scratching.

The profuse salivation which often comes on at this time is not caused entirely by nerve irritation, but may be from indigestion; at least I have seen one or two small doses of calomel and bismuth sub nit., put a stop to it.

As a remote (or otherwise) cause of disease is strangers or friends of the family kissing or caressing the infant, their foul breath, and contact of lips, and saliva left on the lips and delicate skin.

Bringing other children to visit with their mothers and contact therewith.

Having kittens and puppies as playmates for the infant. All these are to be deprecated (and if possible prevented) as it is known that disease is communicated from skin to skin, and diphtheria and fevers have been traceable to animal contact. It is not uncommon for "cramming" to commence even at birth. Sugar teats, pieces of fat meat, crackers, mashed with milk and sugar or cream. Later on chewing off food by grown persons, perhaps with bad teeth, and it placed in the mouth of the innocent to be swallowed, disease germs and all. Badly cooked, indigestible food forced down its throat, in a partially mashed condition. Cow's milk, raw, boiled, roasted, stewed, baked, sodaed, limed and ammoniated. Buttermilk, clabber, cake, pie, custard, etc., etc., *ad libitum*, and to the infant, *ad mortuam*. It is noticeable that the results of these old time practices are mostly seen *about the time of the first irritation* of the forthcoming tooth. When the "combination" appears, and baby is irritable, sick, almost dead, you will hear the idiotic perpetrators of these enormities smilingly remark: "Baby is teething; please give him something." How much of the death rate of the first year of infant life is due to these sins of ignorance or viciousness, God only knows. We see enough of it in the little skeletons, the dropsical enteritis and thrush (which is another name for enteritis).

We know that the stomach and liver are most active in infancy and childhood, and that such sins against nature and common sense must result in temporary if not permanent trouble, and to this nearly all of the irregularities in infancy and childhood are due. It is a little curious that the teeth which appear after the first and second year cause very little trouble, because the stomach has become accustomed to the new style of diet.

How are these troubles to be avoided? If we go to the root of the evil, we must have less of early marriages (of women under twenty to twenty-five). We must have a more virtuous set of men, free from venereal taint. Then we must have a more intelligent management of the infant by its mother and nurses. "Erdman," (in *Archives of Gynaecology*), says: "Twenty-six per cent. of children who die after viability, die of syphilis."

If we cannot have these improvements it is supposable the crimes will continue and must be ministered to.

For the nervously inclined baby I know of no better treatment than to aid digestion, and keep the alimentary tract clean. One-half to one grain of calomel, once or twice a week, with some form of pepsin (Peptenzyme) chloral hydrate, chloroform water, *pro rata*.

For enteric trouble: Bismuth sub nit., one to two drachms; acetate lead, two to five grains; rain water, two ounces. May add chloral hydrate, two to five grains.

Dose, one-half to one teaspoonful, three to five times a day.

To this, in place of chloral, may be added salicylate of soda, sulph. carbolite zinc, or salol, the latter to be rubbed up with glycerine. At the

same time don't forget calomel and arsenite of copper.

For thrush: calomel in one-half to one grain doses, also boric (boracic) acid, and precipitated sulphur in equal quantities, made into a paste with honey or glycerine. Put a little into the mouth of infant, rubbing it on the gums before nursing.

For hives (a form of measles peculiar to the first few weeks of life), called by some dermatologists "urticaria," or nettle rash, (?) named by Rezin Thompson "Strophulus," give calomel, one-half to one grain daily, some warm tea made from some of the "mints," a little chloral hydrate added to the tea, or a little acetanilide rubbed up with glycerine. For the itching, a few drops of carbolic acid added to the bath. Be careful to exclude woolen from contact with skin, placing a light shirt next to skin. Keep clothed properly, not too hot or too cool. This disease is common, say in sixty per cent. of children. I have thought it an heredity, as I have known several families which for generations have been exempt from it. Keep the skin clean; bathe once a day in moderately cool water, to which add a few grains of carbolic acid or chloral hydrate, or both. This last relieves the intense itching, which is readily appreciated by the adults when they have the measles.

For colic.—"Turpentine tea," "julip," as called by the witty old Dr. Chas. Meggs, made by adding fifteen or twenty drops of new turpentine to a teaspoonful of sugar. Rub well together, add scalding water to fill the cup, and when cooled, strain off into another cup a teaspoonful every hour or half hour. A few grains of chloral hydrate, say six to ten grains to the cupful, will aid very pleasantly. And right here I cannot urge too strongly the entire *disuse of any form of opium*. In old times "poppy-head tea" was a common medicine, but this contains the opium principles, all the same.

Proper clothing is such as will ensure comfort, not too warm or too cool, not too tight. Several times in my medical life I have seen an almost lifeless infant restored by merely loosening the clothing. They had taken on a rather heavy supper of milk, and when noticed afterward were breathless, limp and cold. Prompt relief followed loosening the clothing and friction. In one case, artificial respiration had to be resorted to.

Let the clothing be not too heavy or too long. If flannel is used, there should be a thin cotton shirt next the skin.

Bathe at least once a day the whole body in water just a little cooler than the blood, and decrease the heat as the infant gets older. Soap and warm water soften the skin and encourage excoration and chaffing.

See that from the first day of life of infant that it gets several times a day a few teaspoonfuls of cool water. I was called at midnight several miles in the swamp to see a feverish, fretful infant. On inquiry, I learned the mother had never given it water to drink. Two or three teaspoonfuls of cool water brought quiet and sleep. No other medicine was given. The mother remarked her "doctor had never hinted at the necessity of it."

As aids, in these latter days we have some good artificial foods which, from their merits, should command our attention where needed. Among these "Horlick's Malted Milk" has answered all demands I have made on it, not only in infancy, but in debilitated digestion of the adult and aged. In every way it is a splendid substitute for the mother's milk when that is wanting. Another is "cod-liver glycerine." As it mixes readily with milk, it will take the place of cream when the milk is poor or thin.

Neglect.—Such as carrying the infant out into the air too soon, coarse fabrics next the skin, neglecting to wash diapers before they are used a second time, failing to bathe the whole body at least daily, also not washing the scalp as well or wiping out the mouth with a clean, soft rag once or twice a day.

Convulsions.—This dreaded affliction comes first from super-excitability, hereditary usually. The effect of irregular habits of eating and sleeping, or venereal taint in parents, aggravated by the excitement set up by dentition. The treatment of these is keeping the gums scarified, the intestinal tract clean and the use of chloroform water and chloral. Second, by the effect of prolonged labor and pressure on the base of the spinal column, called "trismus nascentium." J. Marion Sims said: "These are a fruitful source of nervous explosions." There is as yet no treatment that has in my hand succeeded in curing. Third, fever from deranged bowels, dysentery, or constipation and sudden colds. Fourth, from fever attending malarial attacks. The treatment in convulsions from bowel trouble is chloroform till other medicines can act. In malaria, when congestion of the brain is feared from the initial attack, acetanilide in one two grain doses in glycerine, to induce sweat and terminate the paroxysm. Of course the warm bath and other helps are not to be neglected; but in no case or under any circumstances do I use alcohol in any form.

Brethren and fellows, will you allow me to digress a moment, in closing this rather long and tedious essay, to call your attention to a new use of a comparatively new drug—acetanilide. What we most dread in our hot climate in fever in infancy, is congestion of the brain. Under one year of age I have found it always fatal.

I believe I have saved several lives by preventing the return of the chill, by the use of one to two-grain doses of acetanilide. And I respectfully urge on you, if the child has had a chill (or its mother is having chills the infant will imbibe the disease) and fever rises in the infant, use the means you may think needed to cure the intestinal trouble (which is almost always present), but try and control the fever by the use of this drug. I do not claim much benefit from it in specific fevers, but in chills, where the exacerbation is marked, a single dose given before the attack or during the fever will bring on the climax and may save your patient.

I do not know whether it is safe or orthodox to fly into the face of the prevailing "*quinine is the only cure*" theory, but so much am I convinced of

its safe and sure action in aborting a chill, that I would stake my life on the issue and be sure to win. As a dusting powder for excoriations, boric acid and acetanilide, equal parts, rubbed well in a mortar, and dusted over the parts. It seems to act as a local anaesthetic.

In conclusion, I thought you would prefer personal experience to that taken from books which you have all read and studied.

You have, herewith, the bedside clinic of twenty-five years (I ought to say forty years) of close study of several hundred cases of all kinds, and by one who is not satisfied without he has the reason why of everything that comes under his observation.

The subject is an intricate one and difficult to master, because you have only symptoms to judge from and, most often, a not very intelligent mother or nurse from whom to obtain previous history. But it is a grand study. The nearest approach to divinity in medicine and worthy of the best thought of every true doctor. You will observe I have used mostly the common run of medicines, those which every doctor has with him or can be found in every house.

THE DANGERS FROM THE USE OF THE SO-CALLED "UTERINE SUPPORTERS."

By W. THORNTON PARKER, M.D., GROVELAND,
MASS.

A RECENT case under my care where a woman's health was seriously impaired and where severe local injury had been induced by the use of a so-called uterine supporter, has suggested to me that a few words on this subject might not be inappropriate. Our medical journals contain many advertisements of these instruments of torture, and one medical journal has lately come to my desk, which actually offers one of these "supports" as a premium for a new subscriber.

I have never met with a solitary case where the least possible improvement could follow the use of such an appliance; but I have had many cases under my care where serious harm had been done, and in one or two instances considerable danger was threatened.

Reflexly, the use of the supporter and even of the hard pessary, acts disastrously on the nervous system. I have repeatedly had patients improve under my care when supporters and hard pessaries had been taken away.

In a recent number of the NEW YORK MEDICAL TIMES, I published an article on the use of the oakum pessary, which I introduced in 1879. Since that time, I have used no other method of correcting uterine displacements, and have found this method very satisfactory.

The oakum pessary is peculiarly suited for nervous patients, as it creates no annoyance or suffering: it affords ample support and relief, and induces a sense of comfort and support which I have been unable to obtain for my patients by any other method.

With the oakum support or pessary, and with

the boroglyceride suppositories, I have been able to save many patients from operations. The following extracts from some of our leading gynaecologists ought to make the use of hard rubber supports and pessaries obsolete.

"Pessary" is from a Greek word, to soften; originally meant a soluble substance placed in the vagina, as a suppository is in the rectum. Dr. Barnes suggests a far more appropriate term, "Hysteroophores" (from Greek words meaning womb I tear) for instruments employed in retaining the uterus in position."—EDIS.

"The use of pessaries requires a vast deal of skill, mechanical ingenuity, and patience. Even with every precaution, cases will commonly occur in which the parts will be injured by pressure, and without precaution the means is one which is attended by absolute danger."—THOMAS.

"The penalty of pessary wearing is the destruction of the contractility of the vagina by constant distension, and often serious inflammation and ulceration of its walls."—BARNES.

"All the pessaries having a stem attached to a band around the body have given trouble when worn for any length of time."—SKENE.

"Many a woman has suffered from, and many a woman has died of a pessary."—DUNCAN.

"Were I asked at the present moment whether I believed that in the aggregate they accomplish more good or evil, I should be forced to give a doubtful reply."—THOMAS.

"Many of the pessaries still sold are useful for no purpose that I know of, save to be handed down through some museum to posterity as interesting relics of the pessary period."—MACNAUGHTON JONES.

"The pressure of the pessary develops chronic para- or peri-metritis."—MARTIN. (Cushing's translation.)

DIPSOMANIA.

BY J. A. CARMICHAEL, M.D. NEW YORK.

THE course of our investigation has now brought us to the consideration of the local cause or causes of the intense thirst that is one of the prevailing characteristics of this disease, and from which it takes its name. We have already indicated that gastric influences, impelled by the nerve forces of the pneumogastric and sympathetic nerves, must of course play a most important part in determining the irritation beginning in their terminal tendrils and irradiating thence, pass retrocurrently, and thus involve other nervous associations and sympathies. It is now our duty to consider these nervous sympathies and associations, pursuing them upward, one after the other, and the nature of the nervous matter by which they are begotten, as also the more central nervous matter which is the true progenitive source from which all the phenomena witnessed in dipsomania primarily proceeds. We have already indicated that such an investigation as we propose would include the association of the nerve forces of the sense of taste and smell, and such other

forces as are conveyed by nerve distribution to pharynx, palate, fauces, tongue, mouth, etc., and will involve a little anatomical detail, for which we bespeak the indulgence of the reader. Then, let us begin and pass upward from the cardiac or oesophageal orifice of the great cul-de-sac of the stomach, and we shall find that there are certain nervous associations that demand our attention, and which may perhaps help us to locate some of the dipsomaniac phenomena. Anatomy teaches that the oesophagus is liberally supplied with the stimulus of nerve-force, and the interpretation of the nature of the stimulus physiologically shows it to be capable of general sensation, motion, and the specific influence which always attends the ganglionic distribution of the great sympathetic wherever it is found. All of this variety of force is embodied in the oesophageal plexus, and helps to explain that portion of the sensation of thirst that we will call oesophageal, as also its contribution to the morbid and depraved appetite, the consuming thirst, and the horrors and perversions of the insatiable craving that relentlessly pursues the unhappy dipsomaniac. Opposite to the middle constrictor of the pharynx, there is located a nodule of nervous matter—so to designate it—that has a history, and a history of an interesting and peculiar character, well worthy of our consideration. Its name—the pharyngeal plexus—shows that it is of composite character, and made up of contributions coming from various sources and meeting in a plexus or knot or combination, evidently for the purpose of consolidating a force or forces which shall be ultimately irradiated from a central point and distributed variously in order to convey those latent forces to their several destinations.

Let us follow out, in the first place, these several destinations, and thus locate the area of distribution from the pharyngeal plexus. Then next, in order of investigation, the nerves contributing to the formation of the plexus, the nature of their nervous material, from what sources it comes, the differences in its component elements, and why those differences shall naturally convey variety of functional power.

1st. The area of distribution from the pharyngeal plexus embraces the pharyngeal muscles, the pharynx, its mucous membrane, the tonsils, soft palate, tongue and its papillæ, meeting the oesophageal distribution from below, thus embracing a wide area to which the sense of thirst is naturally referred.

2d. The names of the nerves contributing to the formation of the pharyngeal plexus, whence they come, and why they should unite to form this mysterious plexus. Anatomy teaches us that the pharyngeal plexus owes its existence to contributions from three sources, from the pneumogastric, glosso-pharyngeal, and great sympathetic, a trinity of nervous matter by which it is endowed with the dispensation of sensation, motion and emotional or sympathetic power, so that it enjoys all the qualities of nervous matter, except that of special sense.

3d. A brief *résumé* of the powers resident in these nerves will establish the genealogical purity

of the plexus, and explain the value and the diversity of its functional operations. By the pneumogastric and glosso-pharyngeal nerves, it is held in connection with the extensive associations of these great powers, and so heart, lungs, stomach, liver, larynx, pharynx, palate, tongue, and the general mucous membrane of all these organs are included in an indivisible unity, and an offending irritation of any one is, to a greater or lesser degree, experienced by all.

4th. The sympathetic, too, adds its contribution to the pharyngeal plexus, the great ganglionic stimulus of its subtle gray matter, the substantia gelatinosa, to which we have so often called attention in our investigations of nervous matter, and endeavored so earnestly and laboriously to find out something about its mysterious qualities.

We've only to recall the convulsive movements of the pharynx in certain forms of hysteria, with their pathetic paroxysms of weeping, sobbing and other expressions of mental, moral and physical agitation and disquietude, to learn the nature of the emotional contribution bestowed by those inscrutable ganglia that begin at the ophthalmic ganglion and end at the ganglion impar.

Pharyngeal agitation in hydrophobia, tetanus, eclampsia convulsions, hysteria, epilepsy, etc., is too well-known to need more than passing mention here, and it is not difficult to understand that the horrors of the life of the wretched dipsomaniac, while under the influence of his maddening thirst, may, and doubtless do, have their initial impulse in the nervous connections of the pharyngeal plexus. The retro-current nervous agitation running along these nerve fibers back to their original birthplace in the cerebral or cerebellar centrum commune, and thence reflected all over the body, doubtless serve to awaken the phenomena that make up the picture that has so often been painted of the luckless victim of dipsomania.

We have spoken of our investigations leading to the inclusion of other nervous associations that have their influence upon the life so fearfully marred and polluted by this terrible vice, and we alluded to the senses of smell and taste.

The reader will remember the illustrative example we recently gave of the revolting perversion of the senses of taste and smell in this connection. All the obligations of social life, the enlarging and refining influences of mental and moral culture, the loving and tender associations of home, family and friends, the natural pride and careful observance of the duties, amenities and courtesies of social position, and, to the nature that has been reared and educated in the higher and more elevating principles and practices of a matured and perfected life, the ever-present admonition that "*noblesse oblige*"; all of these ignored, defied and forgotten in the overwhelming and maddening fury that raged in the distraught mind, held helplessly in the fatal bondage and grip of dipsomania.

We would now like to engage the attention of the reader while we make a few anatomical, physiological and pathological comparisons between the pharyngeal plexus and its powers, and certain

other nodules—as we express them—of nervous matter.

We have spoken of the plexus as a knot—for that is really the generic interpretation of the word—and as a combination of nerve forces meeting at a given point, and subsequently disseminated to their respective destinations. There is another feature of this dissemination to which we have not yet adverted, but which it may be well to consider now, these nerve fibers that meet in the plexus and then separate. Let the reader remember what we have already said of the composition of the nervous matter of the plexus, viz., that it was endowed with various nerve forces, the legitimate inheritance derived from the sources which supply it, and give it existence. These nerve fibres then, on leaving the plexus, take along with them, what? Surely, the powers they derive from the plexus, and from the nerves that make the plexus, which nerves, as we have seen, are the pneumogastric, glosso-pharyngeal and sympathetic, so that we have the powers and influences of these great nerves scattered all over the whole area covered by the distribution from the pharyngeal plexus, thus bringing into close association all the organs already mentioned, beside the senses of taste and smell. So much for the anatomical facts connected with the plexus and its distribution. As respects its physiological influences, from the multiple physiological properties of the great nerves forming the plexus, it is easy to see that every nerve parting from it must carry to its destination a power of some sort, and as we well know from the teachings of physiology, that the great nerves supplying the plexus are the instruments for the propagation of motion, sensation, ganglionic, emotional and nutritive influences, then each nerve from the plexus bestows one or the other of these forces, and there is thereby established an individuality of nerve force here, just as we have so often seen it in our investigations of nervous matter elsewhere. If this be so, then can we not gather from it the possibility of explaining the why and wherefore of the curious and otherwise inexplicable and repulsive habits and practices so often seen in the drunkard?

The individual fibrillæ of the retina, when the nervous matter of which they are composed is in a normal and healthful condition, fill the eye with the blessings of the sense of vision, each fibrilla bestowing its own blessing of light, of color, until all the beauties of nature glint and glow in the sun, and "make glad the heart of man." But let the drunkard gorge himself and wallow in his drink; let him say to himself, as did the shameless woman in our recent illustration of the horrors of dipsomania: "Drink then wretch, drink then drunkard, drink villainous woman, forgetful of your first duties, and dishonoring your family;" let him be overtaken by delirium tremens, then demons and devils, and all manner of horrible and disgusting things crowd upon his retinal fibrillæ, and creep and crawl around and about him, until there isn't a lost soul "*un âme condamnée*," whose story is told upon the pages of the "Inferno," that wouldn't prefer the horrors of hell

itself to those that haunt the miserable wretch while on this earth, and not yet gone—who knows where?

Now we reach the pith and marrow of our subject-matter, the "*experimentum crucis*" that is perhaps indeed going to crucify us for our presumptuous hope of finding somewhere in the brain "the dam-ned spot" from which proceed the terrors of dipsomania.

But we're going to try, nevertheless, and if we fail, well, we can at least but hope to be forgiven for the effort.

"Our doubts are traitors, and make us lose
The good we oft might win, by fearing to attempt."

Before Broca's day, the source in the brain from which aphasia came was undiscoverable and inexplicable. But from the moment that the mind of the diligent explorer of the mysterious phenomena of the physiological operations of the brain took the direction that tended to brain localization, from that moment a flow of light was let in upon a host of these functional operations. Now, locality after locality is being opened and explored, and the keen and penetrating microscope has, and still continues to reveal to the eye of the physiological observer, the hitherto hidden nests of those wonderful cells which do all this brain work that we call mind. As we know, Broca located aphasia in one certain cerebral convolution, and his experiments would seem to show that the home of articulate speech was really there, and there alone. But subsequent investigations, the details of which may be found in some of our translations of the proceedings of the medical societies of Paris, tend to indicate that the faculty of speech, while it may and does proceed primarily from the convolution of Broca, is yet of a composite character, and requires the adventitious aid of other brain and nerve powers, viz., those that control respiration, laryngeal, lingual, buccal and other functional activities, and in the absence—because of the imperfection or paralysis, temporary or permanent—of all these adjuvants of speech, that function is, and remains marred and incomplete. We cite this instance of the relations of cerebral localization and cerebral pathology to the perfection of a faculty or power of mind, or to the abolition of that faculty from impairment of brain structure, as also of the physical ability of the component cell elements of that structure to transmit the force which they generate, and by which they are continually vitalized and stimulated.

We have also cited elsewhere positive evidences of the development of insanity, and of the cause of that development from the invasion of the cortex by disease, which resulted in the destruction or wasting of certain portions of its structure. (Tusczek.) Distinct and absolute cerebral localization is then the only way whereby these disorders of the mind, of whatsoever character they may be, can be traced; and whether manifestation of mental disorder be excito-motor and extrinsic, as to their cause, or cerebral and intrinsic, they are essentially *localized cerebrally*, and have some distinct point of departure from which they exercise their pernicious effects upon the body. Of

course we do not lose sight of the occurrence of excito-motor phenomena which are confined to a circumscribed area and are essentially extrinsic, and do not necessarily involve cerebral localization. But even so, should they pass beyond certain limits and continue long enough, and come within the range of the continuity that is the law of the great nervous system, they will sooner or later surely make manifest that continuity by some disorder or disturbance, somewhere or somehow, cerebral, cerebellar or other.

Can we adapt this method of reasoning to that form of insanity which is called dipsomania? Our belief is that the thirst that specifically characterizes this disease is of nervous origin—we do not mean nervous according to the usual interpretation of the word—and we have endeavored to prove it by investigating the nerves that supply the organs where the sense of thirst is felt and exercises its craving torment upon the dipsomaniac. If that be so, then the only possible way, as seems to us, to hope to find the relations between the disease and the brain, is to follow these great nerves back to their sources of origin in the brain, and to question them there.

CLINIQUE.

TREATMENT OF INTERNAL HEMORRHOIDS.

BY E. P. MILLER, M.D., NEW YORK.

THE WHITEHEAD OPERATION.

THIS treatment consists in dissecting the mucous membrane from the hemorrhoidal inch, cutting away with the scissors any hemorrhoids that are found therein, and then drawing down the mucous membrane and stitching it to the parts from which it was severed.

The Whitehead operation is thus described:

"The bowel is prepared as for any ordinary operations by the ligature or clamp. The patient is given an anaesthetic and the sphincters are thoroughly dilated. A search is made for the fine line which marks the boundary between the skin and the mucous membrane at the anus. With a pair of sharp, pointed scissors or with a knife, a cut is made along this line, completely severing the skin from the mucous membrane. By careful dissection the hemorrhoidal tumors are turned out of their beds in the meshes of the areolar tissue, proceeding with the dissection from without inward, around the entire anus, until all the hemorrhoidal enlargements have been dragged from their resting places. The dissection is carried upwards high enough to secure thoroughness of work, which is usually about the upper border of the internal sphincter. The next step in the operation is to remove the entire rim of dangling mucous membrane by segments, together with its veneering of pile tumors. As a portion of the mucous membrane is removed with the hemorrhoids and all hemorrhage is checked, it is immediately stitched to the margin of the severed skin and the operation proceeded with in a similar manner until the entire pile-bearing inch of mu-

cous membrane has been removed, and the skin and mucous membrane are naturally coapted."

Dr. Pratt, who thus describes this operation, says :

" After considerable experience with this operation, I am sure I am not unfair when I say that the first few operations after this method, even in the hands of a good surgeon, will be quite bloody and somewhat tedious. Experience, however, will in time remove this objection, and I have none but words of commendation for the operation."

Doctors Cooper and Edwards say of it :

" The objections to Whitehead's operation are somewhat numerous. In the first place it is not easy of performance, and the time required takes from twenty to thirty minutes.

" Secondly, the bleeding is usually much more free than in any other method of operating. One objection consists in the fact that there is some risk of stricture of the rectum if the entire circumference be removed. The ligatures employed to unite the mucous membrane with the skin may cause ulceration and fistulae. The method is unsuitable whenever complications exist; and lastly, in the majority of cases hemorrhoids can be cured by a far less serious operation."

The doctors, Andrews, raise the following objections to this operation :

" There is great difference in patients about the liabilities of arteries closed by tortion to untwist their fibres under the arterial blood pressure and resume hemorrhage. If this occurs the row of fine stitches set in a tender mucous membrane is not adequate resistance against the force of arterial blood. According to the experience of both Prof. Weir and Mr. Whitehead, "union by first intention will not always take place," and if it does not, a circular ulcer, after it a contracting ulcer and cicatrix will surround the orifices, and a stricture will result, precisely as it does sometimes when a surgeon inadvertently removes in other operations a complete zone of mucous membrane about the same place. In one case a total and permanent incontinence of faeces results, leaving the patient in a most miserable condition. All things considered it is an operation of great severity and some danger, and ought not to be performed, except in a few peculiar cases, since simpler and milder operations have a perfect certainty of success."

Dr. Kelsey, of New York, finds several objections to this method of operating for hemorrhoids. He says :

" The points on which the merits of the operation must rest are not that it cures and fails to kill, but the amount of pain and constitutional disturbance it causes. Success of the operation depends entirely upon securing union of the coapted surfaces by first intention, and failure of such union is nowhere more common than in this part of the body.

" If it fails to thus unite there is a wide ulcer completely surrounding the anus, and a stricture is the necessary consequence.

" I have recently seen several cases where there was another danger of this method, and one which

I have not thought likely to occur. The patients have all been operated upon by hospital surgeons, and the anus now presents a peculiar appearance, at first sight resembling a slight but complete prolapsus. The incision in the operation had been outside the muco-cutaneous connection; the mucous membrane had been drawn down to meet it and had united by first intention. Result, a ring of excoriated mucous membrane, in half of its extent fully an inch wide, surrounding the entire circumference of the anus, and ending, without any shading off, suddenly and abruptly in comparatively healthy skin. As for the method, it seems, as I predicted when it was first made known, to have lasted a short time as a surgical curiosity and now to be almost abandoned."

Dr. Matthews says of this operation :

" After a fair trial I am forced to conclude : (1) That the operation meets the demand but in few cases. (2) When it is considered that a large number of subjects are unable to take an anaesthetic, that some danger is always risked in giving an anaesthetic, that as other methods simpler in execution and freer from danger can be practiced without the use of an anaesthetic, these should be preferred. (3) As a full and complete paralysis of the sphincter muscles is necessary to the operation, great risk would be assumed in many cases. Other methods of cure would not necessitate this procedure. (4) From the fact that large blood vessels have to be divided and that the rectum is a difficult place in which to secure arteries, the operation is in consequence a bloody, difficult and tedious one. (5) If union by first intention does not take place, as would likely be the case in strumous and other diatheses, the wound would be a large suppurating one, and sepsis would be invited. (6) The operation is not considered complete unless the whole hemorrhoidal plexus is removed. I submit that this involves an unnecessary amount of surgery, and that the author's conclusions are based upon a wrong premise. (7) In view of the fact that the vessels are tied or twisted during the operation, and that the parts are in a diseased state, secondary hemorrhage could be easily induced, and is a dangerous condition, especially so in the rectum."

Dr. Matthews' objections to anaesthetics and to a paralysis of the sphincters, in the Whitehead operation, would apply with equal force to the use of the ligature and the clamp and cautery, as both are necessary in these operations.

THE AMERICAN OPERATION.

The American operation, as before stated, differs from the Whitehead mainly in the method in which the operation is performed. While Whitehead commences at the white line which divides the mucous membrane from the skin, the American operation makes a dividing line at the upper border of the internal sphincter. The mucous membrane is cut through at that point and dissected down to about the point where the Whitehead operation begins. Instead of being dissected up from the white line to the border of the internal sphincter, the membrane is seized by forceps at the upper border of the sphincter, and dissected

down. The whole of the sub-mucous tissue, including the hemorrhoidal vessels, are thus laid bare, all the hemorrhoids that are visible around the whole hemorrhoidal inch, together with the mucous membrane covering that part, are then removed. The blood vessels are either ligated or the bleeding arrested by tortion; the mucous membrane is then drawn down and stitched to the mucocutaneous portion below.

As a full description of the American operation occupies some twelve pages in Dr. Pratt's work on *Orificial Surgery*, and should be read in full to get a clear idea of its importance and value, the profession are respectfully referred to that work, published by Halsey Brothers, of Chicago. It is a book worthy of a place in every physician's library, as it treats of orificial surgery as applied to all diseases of the pelvic organs. Of the large number of physicians who have attended Dr. Pratt's lectures on orificial surgery and witnessed his operations, so far as I can learn all hold it in very high estimation.

The American operation is undoubtedly one of the most formidable, for the treatment of internal hemorrhoids; and yet for the class of cases to which it is best adapted it is one of the most successful. There is probably a greater loss of blood and it takes more time to perform the operation than any other, unless it be the Whitehead; but if the arteries are all effectually secured and the stitches attaching the mucous to the mucocutaneous membrane are made safe, the risk of secondary hemorrhage is very slight.

Dr. Pratt says of the American operation:

"In the four years since the operation was conceived I have performed it on an average of over 200 times a year, although I always try to be careful in the selection of cases, and never inflict the operation upon a patient when I can possibly accomplish my object by a less severe process. My appreciation of the operation and its results has not diminished with time and experience, but on the contrary, my respect for the accuracy, for the neatness, for the thoroughness, for the local and general results accomplished by it has steadily increased, until in spite of every objection which can be raised against it, I am compelled to regard it as the greatest achievement of surgical science in the realm of rectal surgery."

Dr. Pratt, in an address delivered to the Orificial Congress of Homœopathic physicians and surgeons, gave an analysis of one thousand cases which had been operated upon by his system of treatment, of which he says:

"A large percentage of these cases were extremely difficult ones and often desperate, the most of them having exhausted the skill of many physicians in search for relief.

"Almost all these patients had been under treatment elsewhere for a series of years, and had lost faith not only in doctors, but in humanity. The orificial treatment was employed after all other tried means had failed."

Notwithstanding the almost hopelessness of the cases treated, he reports 81.79 per cent. cured; 10.89 per cent. improved; 7.32 per cent. unimproved; and only 12 out of the thousand cases

proved fatal. These were not simply cases of hemorrhoids, but they were cases of hemorrhoids combined with the most obstinate and difficult diseases of other pelvic organs. Many of these cases had fibroids, ovarian tumors, cancers, endometritis, ulcerations, and other severe complications in both sexes.

Dr. O. F. Runnels, of Indianapolis, says of the American operation:

"This operation is offered as a rescue where all else has been found valueless. It will supplement the operations of every other procedure, and can be relied upon when hope itself has grown sick with oft repeated disappointments. It acts as a boon to the baffled doctor and the hope-deferred patient, and with such salvation within its ability, is competent to fight its own battles and win its own victory.

"Asking as it does only for the snags and refuse cases of the profession, it encroaches upon the province of no other method of relief, has a field all its own, and dominates the situation.

"Because of its general applicability, its essentially harmless character, and its signal relief in long-time failures, I regard the American operation as the most important surgical advance of the present generation."

Dr. Pratt frankly calls attention to the adverse conditions liable to result from the American operation, as follows:

"The mucous membrane is sometimes so friable that the stitches will cut through and the membrane retract in isolated places, or around the entire circumference of the anus. In many cases it results in the formation of a stricture which nothing but time, repeated dilatations, and an extended course of faithful attention on the part of the subject can overcome.

"In weakened conditions of the longitudinal fibres of the intestine, especially where the skin has been a little too generously sacrificed, it occasionally induces ectropion of the anus, which remains as an irritable and annoying result, taking sometimes several weeks or months to overcome. Sometimes the integument will be drawn into the anus upon one side but not upon the other. Sometimes, instead of healing perfectly by first intention, as it should, the mucous membrane and skin will separate for a short distance, leaving an annoying sulcus about the anus. Sometimes the mucous membrane is a little thicker than the integument, and will require much subsequent trimming with the scissors to secure a satisfactory smoothness of the surface. Sometimes the tissues about the anus will become somewhat tumefied, and present so clumsy a covering for the sphincters as to make the part unwieldy, and the patient will be annoyed by an occasional escape of flatus or even fecal matter, especially if the bowels are inclined to be loose, which unpleasant state of affairs may prevail anywhere from a month or two to a year or two. Sometimes, in dilatation of a strictured anus which has resulted from the operation, fissures will be formed, which are quite obstinate in their nature, and become a source of great annoyance to both patient and doctor for many weeks.

"In some cases reflex bladder symptoms will supervene; in others, catarrh of the rectum and sigmoid will be apparently induced, while in yet others the patient may be thrown into a condition of constipation sufficiently obstinate to test the good nature of both patient and doctor to the extreme. And so on through the list of undesirable and unpleasant sequelae. But, nevertheless, these various annoyances are all merely temporary in their existence, and can be all more or less easily overcome. They occur but in a small proportion of cases, and to compensate the surgeon for these complications and annoyances is such a vast amount of general and local good accomplished, that it is the universal verdict of all those who have had any extended experience with the American operation that it is one of the most satisfactory and important procedures in surgical practice."

Dr. J. J. Thompson, Prof. of Official and Plastic Surgery in the National Homoeopathic Medical College of Chicago, says of the American operation :

"For special cases where large hemorrhoidal tumors extend about the whole circumference of the anus, and where there is a considerable redundancy of tissue, I recommend this operation highly, and practice it often with the most gratifying results. It is much more easily accomplished than the Whitehead operation, inasmuch as you can more easily control the hemorrhage, from the fact that the hemorrhoidal arteries enter from above.

"I performed this operation upon a man seventy-three years old, who slept well the night following the operation, and whom I found peacefully smoking his pipe the next morning, and without one particle of morphine or any other drug, except, perhaps, a little belladonna or arnica, as indicated.

"It is very seldom that the patient complains of severe pain after this operation, when properly done. On the other hand, there are so many disappointments and so much grumbling, when practiced where there is comparatively little or no lesion of the parts and for the reflex effect, that it is only the boldest surgeon that dares recommend it.

"My objections to the American operation, as practiced for the purpose of acting through the sympathetic upon reflex conditions, is three-fold :

"1st. It often fails entirely in relieving the symptoms for which operated. 2d. It often leaves the patient in a much worse condition than before the operation. 3d. When benefits have resulted from the operation, they could, in most instances, have been brought about by less heroic and more rational treatment."

There are many cases where serious complications occur, such as disease of the bladder, the prostate glands, and urethra in men, and of prolapsus, hypertrophy, fibroids, lacerations, and other serious difficulties of the uterus or ovaries in women, for which the American operation, and other official treatment, as performed by Dr. Pratt, may be found to be the most advisable method of treatment. For the treatment of such cases a sanitorium, where patients can be received

and properly cared for by nurses trained for this special work, is desirable. It is not an operation that is suited to office practice, but can be performed in private houses by having trained nurses to care for the patient.

TREATMENT BY INJECTIONS.

One of the latest and most successful methods of treating hemorrhoids is by injecting carbolic acid or other hemorrhoidal compounds containing antiseptic properties, with a common hypodermic injecting instrument, having a long needle attached. This treatment has come to notice only within the last quarter of a century. It was first brought to public attention by Dr. Mitchell, of Clinton, Ill. It was subsequently greatly improved upon by the late Dr. A. W. Brinkerhoff, of Ohio. The treatment was so successful from the first that it became popular in the West, and there are now thousands of physicians who are using it throughout the United States. Their success depends very much upon the skill of the operator, and the extent of his knowledge as to how to apply the remedies used.

As before stated, Dr. Charles B. Kelsey, of Madison Avenue, New York, in the *Journal of Medical Science* of September, 1885, and also in the *New York Medical Journal* of the same date, unqualifiedly endorsed this treatment. We copy the following statement from Dr. Kelsey's writings :

"About five years ago, in the first edition of my work on 'Diseases of the Rectum,' I committed myself to a favorable opinion of the treatment of hemorrhoids by injection, in the following words : 'The treatment of hemorrhoids by injection of certain substances, chief of which is carbolic acid, may now, I believe, be accepted as a surgical procedure of a certain definite value, and one worthy of a place among the recognized means of cure at our command.'

* * * * *

"I began the treatment by injections timidly and cautiously at first, collecting all the information possible and making many experiments. When a patient would consent I still operated by the ligature, reserving the other plan for those who positively refused operation, and giving rather doubtful opinions as to its permanent results.

"Since then my ideas have changed. Out of all the cases of hemorrhoids which have come to me during the past two years I have only 'operated' twice, and yet I have no reason to believe that I have failed to effect a satisfactory cure in any case.

"Now, let me state a few general facts. After an experience which I consider amply large for a fair test of this plan, it has become my routine practice. I no longer advise a patient first to be operated upon, and adopt injections when he or she refuses, as was my former practice ; but I advise this from the first, and *promise a painless, radical cure in a few weeks* without confinement to the house. This point of confidence was not reached without misgivings. In all my cases never have known a patient abandon the treat-

ment after it was begun, but once or twice. In all of my cases I have never failed to effect a perfectly satisfactory cure—one which I consider as radical as by any other method of treatment. Many of them have been under observation for years since the cessation of the treatment, with no return of symptoms. In no case have I had an accident of a serious nature. Never any signs of embolus; never any serious sloughing or inflammation; no trace of pyæmia or hemorrhage. The injections which I use, varying from the pure carbolic acid to a ten per cent. solution of the same, often cause a slough; but the amount of sloughing, which has always been in direct proportion to the strength and quantity of the injection, can be regulated at will, and has never been of sufficient extent to cause me the slightest mental uneasiness.

"There has never been any constitutional disturbance, any retention of urine, any febrile action, or any of the usual symptoms following either the operation with the ligature or the clamp; and I have never been troubled by a wound after the separation of the slough which has required any additional treatment to induce it to heal. I have had to treat several caused by the ligature, and very bad cases to treat they were.

"As regards the amount of pain caused by the injections, I have had several physicians whom I have cured by this plan (judging from my own experience it is a favorite plan with the profession), assure me that they suffered no more pain than any ordinary hypodermic puncture into this very sensitive part would cause. For a couple of minutes there was a smarting, tense feeling, and after that no sensation whatever."

Drs. Cooper and Edwards, in their work on "Diseases of the Rectum and Anus," in speaking of the method of treatment by injection, say:

"The advantages of this method are that it does not necessitate confinement to bed, nor even the house, and no risks of life from hemorrhage, tetanus, erysipelas or pyæmia. Abscess is a very rare complication. Patients commence to get better immediately after the first injection, and are able to attend to their usual occupation during the whole course of treatment. In this respect the operation contrasts very favorably with all others."

The foregoing statements of Dr. Kelsey were published in 1885. In a recent edition of his work he favors the clamp and cautery. His reasons for so doing are that "many of his old patients were not radically cured, and came back for treatment."

In regard to Dr. Kelsey's method of treating hemorrhoids by injections, his custom has been to have the tumors strained outside to treat them, while those who are thoroughly versed in the use of the injection method use a speculum and treat them inside. The Brinckerhoff speculum is the best for this purpose. It has a slide, and is easily introduced; by withdrawing the slide the pile tumors can be brought into the slot, and by pressing the slide against the tumor and making pressure also upon its base with the speculum the tumor is held somewhat in its grasp;

and by injecting it while in that position the injected fluid is localized, and acts on the tumor without involving surrounding tissue. Had Dr. Kelsey used the speculum and removed all of the smaller tumors that could not be forced outside of the anus he would have made more radical and permanent cures.

Dr. J. Q. Adams, in the *Medical Review* for June, 1878, in an article on the treatment of hemorrhoids by injections says:

"I believe, in most instances, the injections are equally effective as the ligature and possess advantages over it. First, by causing very much less pain; secondly, by being much more easily applied, especially above the sphincter. Then, there are ten who will submit to the injections to one who will submit to ligation, at least I think so in my practice. Then again the bowels need not be shut up as after ligation; the patient can go about attending to light work; the morning after the operation take a saline laxative and have a passage from the bowels without the slightest pain or hemorrhage."

My experience in the use of the injection treatment has extended over about seventeen years. During that time I have performed thousands of operations, and where directions are followed I believe as many have been permanently cured as by other methods of treatment. A few cases that have returned for treatment are those that quit treatment before they were pronounced well. Among the cases treated there have been three or four of hemorrhage, but this has been readily controlled by injections of ice water or by crowding small pieces of ice above the external sphincter muscle, and by the use of haemostatics taken internally. I have never lost a patient from the effects of an operation, nor have I had one confined long in bed. Where there is bleeding the patient is always advised to assume a recumbent posture and to keep perfectly quiet for a few days. The cases of hemorrhage have generally been those who have not followed advice after the treatment. They have taken long walks, or their occupation required heavy lifting or straining, which gave rise to the hemorrhage.

During my practice I have had a number of cases to treat that had bad ulceration, or with the sphincter muscles in so useless a condition that they were unable to retain the faeces, this condition having been caused by cutting the muscle in performing the ligature and clamp or other operations which had been previously performed by other physicians.

Many physicians use too strong a solution in the treatment of these cases. This is the cause of the slough, yet ulcers resulting from slough caused by injections heal more readily than those which follow either ligature or clamp. From eighteen to twenty per cent. solution, however, is as strong as is generally required for injections. For an external application to stop bleeding hemorrhoids a ninety-five per cent. solution may be used. I have had numbers of patients come to me who were constantly troubled with bleeding while at stool, which condition the first treatment has entirely overcome.

One of my first cases was a Homeopathic physician residing in Massachusetts, who had been troubled for more than forty years. He had been operated upon eighteen times by different methods in this country and Europe, but failed of cure. Severe bleeding followed nearly every stool, and with a constant tendency to prolapsus. He was obliged to give up a practice worth ten thousand dollars yearly and go abroad for his health. I gave him only one treatment that did not take five minutes time, but it relieved him entirely, and he was so pleased that several months later he came to me for instructions as to how to use the injection treatment for his own patients.

If any severe pain occurs after the injection treatment, it is only when the sphincters are irritated and contract powerfully upon the tissues treated. This is avoided by distending the sphincter muscles, so as to temporarily relax their power of contraction, which may be easily done under the influence of nitrous oxide gas, as given in dental operations. This is a much simpler process than to use ether or chloroform, which is necessary where the clamp and cautery, ligature, the Whitehead or American operations are employed. The patient comes under the influence of nitrous oxide gas in two or three minutes; to distend the muscles does not require much more time, and in five minutes after the operation is over the patient is usually out from under the influence of the gas, while in formidable operations in which ether and chloroform are used it is sometimes several hours before the effect of the anaesthetic passes off.

SUMMARY.

To summarize the many advantages of the treatment of internal hemorrhoids by the injection method, we give the following in brief:

(1) The patient is not terrified at the outset by the prospect of a surgical operation. (2) It does not require ether or chloroform, and seldom the stretching of the sphincter muscles, as there is little or no pain. (3) The patient is not confined to bed, and is not subjected to any considerable suffering afterwards. The treatment only requires a few moments of time to apply it, and the patient gets up and goes about his business. (4) The cure goes on almost painlessly, and often without the consciousness of the patient. (5) It acts by setting up an amount of irritation within the tumor which results in an increase of connective tissue, a closure of the vascular loops, and a consequent hardening and decrease in the size of the hemorrhoids. (6) In many cases the fluid injected promotes absorption of the hemorrhoids, while in others they are removed by sloughing. (7) If there is bleeding it is nearly always stopped by the first application to the tumor, and there is nothing like the tendency to secondary hemorrhage which follows the ligature or other methods of treatment. (8) There is less pain, less ulceration, and the certainty of cure (if the patient follows directions) is just as great as in other operations. (9) The remedies applied are antiseptic, and have a tendency to destroy disease germs. (10) The relief to the patient is, in many cases, immediate.

Patients troubled with bleeding and with prolapsed hemorrhoids will very frequently be entirely relieved by the first or second treatment.

Some physician or surgeon who understands and uses this antiseptic treatment of hemorrhoids by injections, ought to be located in every township in the United States. There are millions of people troubled with rectal difficulties who will not submit to any of the principal operations now in use by the medical profession, on account of the dread they have of taking ether or chloroform, and the fear of the formidable operations to which they must submit. If these people thought they could be cured or even relieved by a process that would not require an anaesthetic, that is not very painful, and that would not detain them from business or endanger their lives, the great majority would seek treatment, and be rid of difficulties from which they now constantly suffer more or less.

The injection treatment can be used by the physician or surgeon in his private office, and patients can go about their business. If the operator understands this method of treatment thoroughly, he will be successful in performing many wonderful cures, which will be very satisfactory to himself and gratefully appreciated by his patients.

TRANSLATIONS, GLEANINGS, Etc.

RETROSPECTIVE DIETETICS.

Tannin in Tea.—Dr. Ernest Hart, editor of the *British Medical Journal*, in a recent lecture (*American Medical Temperance Quarterly*), gave the result of an extended series of experiments, which quite contradict the popular notion that by the prolonged infusion of tea an excessive amount of tannin is extracted. The truth is, that tannin is an exceedingly soluble substance, so much so that its solution begins the instant the tea leaves come in contact with the water. The extract obtained after the first fifteen minutes has a disagreeable flavor, but contains no more tannin than the pale infusion made in three minutes.

Dr. Hart entirely agrees with Sir William Roberts in the view that the ill effects of tea drinking are due to theine and the volatile extractives of the tea leaf, and not to tannin. It is also stated by the lecturer to be an error to suppose that common teas contain a greater amount of tannin than the so-called choice varieties. The very opposite of this is true in many cases.

Treatment of Tuberculosis.—At the Académie de Médecine, Paris, January 30, 1894, M. Lancereaux read a report upon a work of M. Caravias, on the treatment of tuberculosis by substances which form succinic acid in the organism, such as raw meats, fats, bimalate of lime, benzoic acid and its salts, non-acidified pepsin, asparagin, carrots, green vegetables, etc. According to M. Caravias, this treatment produced a notable amelioration in cases in which it had been tried, except, of course, in such as suffered from too extensive lesions. He believes that it has no action upon the bacillus, but that by its antiseptic properties it antagonizes invasion by the bacilli, modifying the soil, as it were, and allowing the tuberculous material to pass through its several phases, to be eliminated in the expectoration.

Levulose in Diabetes.—Diabetin (levulose) is a palatable sugar to be used in diabetes as a food, introduced by E. Schering, of Berlin, (*Georgia Ec. Medical Journal*). As it has never been found in the urine of diabetic patients, it is reasonable that it would be a good substitute for sugar in diabetes. It is likely that levulose is oxidized in

the system; therefore it is useful as a nutriment. The Medical Congress of Leipzig examined this article carefully, and as diabetic patients suffer much from abstention from sweets, levulose will prove a great blessing to them. Professor Leyden made various experiments in his clinics at Strassburg, with levulose. When it was given, the sugar in the urine diminished rapidly.

Dietetic Treatment of Chronic Constipation in Infancy.—Dr. L. Emmett Holt remarks (*Arch. of Pediatrics*, Vol. X., No. 9), that infants fed on diluted cow's milk, or on condensed milk, are, as a rule, constipated, as in these cases the food is deficient in fat. Human milk contains about four per cent. of fat, cow's milk about a half per cent. less on an average. It is evident that if the cow's milk is diluted the fat will be in a much smaller proportion than in human milk. In such cases the fat is all absorbed, and hard lumps of curd are left to form the faeces. The remedy is to be found in substituting a food made by diluting a twelve per cent. cream with twice its bulk of sugar water; in most cases the stools at once become softer in consistence. In breast-fed children a teaspoonful or two of cream may be given before they are nursed. Cane sugar or milk sugar have little effect upon the constipation, but maltose certainly has a laxative action. Starchy foods, as a rule, tend to constipate, though coarsely ground oatmeal appears to be an exception. Excess of casein in the food aggravates constipation.

Alimentation in Neurasthenia.—In a recent article on this subject, Dr. Vigouroux (Paris), states that as a rule neurasthenics eat too much and drink too little. Their foods should be chosen from the most readily assimilable, calling for a minimum amount of digestive work.

Grilled or roast mutton, fish, ham, eggs, vegetables, potatoes, (plainly boiled), farina soups, rice cakes, Italian pastes, coffee and fruit. Little or no beef tea, fat, sauces, or spices, and only the freshest butter.

The albuminoid element of the food should not exceed a sixth part of the total. Three meals a day, at long intervals, the last being two or three hours before retiring, the heaviest in the middle of the day.

Plenty of water, at least a litre and a half per day, is the best of all drinks for neurasthenics, and a little white wine, if desired. Water maintains the arterial tension, irrigates the tissues and assists the excretion of debris. Milk should be prohibited, also vegetable soups, peptones and extracts of meats. This regime has no special tonic or reconstructive properties, but is intended to meet the actual wants of the organism, to save unnecessary digestive work, and to minimize the accumulation of used-up material. It would be equally serviceable in eczema and psoriasis and in arthritic conditions.

RETROSPECTIVE THERAPEUTICS.

By Alfred K. Hills, M.D., Fellow of the Academy of Medicine, New York.

Nitro-Glycerine in Sciatica.—Dr. Lawrence (*Rivista de Ciencias Medicas de Barcelona*), reports the case of a carpenter of fifty-two years of age, who suffered for several years with sciatica. In order to alleviate the pain he had become a morphine user, and could not abandon the habit. After trying a multitude of drugs, he gave him a 1-100 solution of nitro-glycerine, one drop three times a day, gradually increasing the dose to five drops. Relief was almost immediate, and in ten days he could resume his work, completely cured.

A New Treatment of Whooping-Cough.—M. De Chateaubourg describes (*Medicine Moderne*), a new treatment of whooping-cough, which consists in injecting, subcutaneously, 2½ c.c. of a ten per cent. solution of guaiacol and eucalyptol in sterilized oil. After the third injection the fits of coughing diminish noticeably, the appetite returns, and, as the vomiting rapidly ceases and the general condition begins to feel the good effect of the treatment, the whooping-cough disappears at the same time. The author reported five cases.

Turpentine in Carcinoma.—John Clay (*Medical Press and Circular; New York Therapeutic Review*), reports five cures of grave carcinoma by means of Chian turpentine. Such favorable results cannot be obtained when the disease has progressed so far as to invade the general system; but even then an improvement can be effected so far as regards pain and hemorrhage, so that turpentine must be regarded as a palliative agent of the greatest value in carcinoma. Besides the five cases mentioned above, the author has treated, during the last nine years, a number of patients with uterine carcinoma with Chian turpentine, who are still alive and present every appearance of health. When it becomes necessary to operate for carcinoma of the mammae, it is a good plan, according to the author, to administer turpentine for three weeks before the operation, in order to destroy the germs, which constitute the cancerous infiltration of the surrounding tissues; and after the operation, the medicine should be kept up for a year, in order to prevent a return. The author has used this method for the last six years in many cases, and has never seen a return. In the treatment of carcinoma, opium and morphine should be almost entirely dispensed with, since their prolonged use in increasing doses contributes materially to produce the cachexia and anaemia. On the other hand, Chian turpentine in connection with antipyrene, acts as a palliative and has no bad after-effect.

As regards the mode of administration, the author prefers the pills to the mixture, but they are not to be used in cases of cancer of the stomach or rectum, as they are not digested. The pills are to be mashed or broken up and taken in milk, to the number of nine to twelve in twenty-four hours. In conclusion, the author warns patients and physicians that patience is necessary in carrying out this treatment, since three weeks and longer may pass before any sign of improvement is visible.

Asafoetida for Insomnia.—Asafoetida is a valuable remedy in the insomnia occurring in the aged, says the *Louisville Medical Monthly*. A 5-grain pill exhibited after supper and repeated at bedtime will often bring refreshing sleep. In mild delirium, and especially during the period of unrest that precedes an attack of delirium tremens, the injection, by the rectum, of two ounces of the mixture of asafoetida will, in many cases, produce the much-needed sleep without recourse to the more dangerous narcotics.

Trichloracetic Acid for Epistaxis.—Professor Cozzolino (*Bulletin Medical*, No. 101, 1893), rejects the use of the perchloride of iron for frequently recurring epistaxis, and advises the employment of a solution of trichloracetic acid, in distilled water; 1 gm., 30-40 gms. of distilled water. A tuft of cotton is wound around a splinter of wood and the solution applied directly to the cartilaginous septum, whence the hemorrhage generally comes. In order to prevent the disagreeable sensation of burning, one may add a little cocaine, or better tropococaine. The remedy acts rapidly, a scab forms on the cauterized spot which falls off and the wound heals.

Ice in Acute Pneumonia.—Professor Mays urges the value of this treatment. He has the chest on the front side and back of the area affected surrounded with rubber bags filled with ice. The number of these depends on the size of the area involved. They are allowed to remain until the temperature becomes nearly normal. If a new portion of the lung is involved, the ice bags are removed to this spot, and this is continued until the tendency to extension ceases.

Treatment of Typhoid Fever With Corrosive Sublimate.—Loranchet (*Gaz. Hebdo. de Med. et de Chir.*), writes very enthusiastically of his results in twenty-one cases of typhoid fever. He claims amelioration of seven symptoms, and apparent lessening of the toxic symptoms of the disease. The tongue remained moist and rose colored, and there was a marked absence of tympanites. Often the pulse-rate was low in proportion to the temperature. He used a teaspoonful of Van Swieten's solution, diluted in a glass of water, and the whole to be taken in four doses within twenty-four hours. All of the cases recovered.

Carbolic Acid in Tetanus.—Carbolic acid, in doses of one-half centigram, repeated one or two hours, is said by Bacilli to cure tetanus.

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OR

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THE REALITY OF THE INVISIBLE.

WE are inclined to judge of the possibilities of Nature by our own present surroundings, by what we see and hear, measuring the infinite by the finite and the possibilities of Nature by its work as revealed to our senses. If we could but realize that all around us there are unseen influences always at work, and always at work on the side of right, in many a struggle for truth, which, for the time being seems borne down by an irresistible force and crushed under foot, we should stand firm, gaining strength with the thought that though now apparently in the minority, majorities and minorities are nowhere for more than a brief time when right struggles against wrong. Right is always in the majority, only give it time enough. With the higher training of our spiritual, and the greater perfection of our physical natures, we become more and more convinced of the reality of the invisible, and the fact that unseen forces are influencing and shaping our lives, and going step by step, further and further into the arcana of Nature, more and more alive at each step to its wonders and its harmonies. The other day, in listening to a mandolin touched by the skilled fingers of Senor Volpe, the air seemed to vibrate with music so soft and sweet, so delicate and full of soul, that the invisible and the unseen seemed to be visible and pulsating in waves of celestial music through the room ; and yet in all this exquisite music the vibrations in the air did not exceed 38,000 to the second. This is the utmost limit of sound to us as the waves beat against the tympanum of our ears.

The vibrations caused by moving light, science teaches us, go as high as 765,000,000,000,000 a second. These rapid waves are too delicate as they beat against the tympanum of our ears to be

apparent to our finite senses. The laws which produce the sounds we hear, make music a necessity of every falling drop of rain and of every snow flake. Every ray of light as it enters our room after the darkness of the night sings its morning song, and as it departs at night it leaves a vibration of sweetest music behind. We suppose these facts to be the outcome of modern science. From whence then was breathed into the ear of Shakespeare, except from the unseen world of spirits all around us the lines ?

"There's not the smallest orb which thou beholdest
But, in his motion, like an angel sings,
Still quiring to the young-eyed cherubim.
Such harmony is in immortal souls,
But while this muddy vesture of decay
Does grossly close it in, we cannot hear it."

Electricity, whose power no one has or can fathom, the great force of the future, no one has been able to see. It is too subtle for the human eye to detect. We see the flash it makes, but never the thing itself. It is physical but yet eludes us like a spirit. It seems the finest possible attenuation of the physical verging off into the spiritual, and yet science is teaching us that the unseen and invisible are so linked with the seen and visible, that the one flows into and is a continuation of the other.

We recognize a law of Nature in the formation and transmission of sound. If we can hear the hum of the gnat, so small as scarcely to be seen, we can easily believe there is a hum too refined for our ears to catch, and we cannot for a moment believe that the law which produces those sounds stands suspended just where we can hear no further. When we read that the morning stars sang together, we recognize not a poetic fancy, but a scientific fact, for wherever there is rapid motion there is sound, although it may be too delicate for human ears to recognize. Every step forward we take in the arcana of Nature, the more we perceive the eternity of her laws, and like God, of which they are a part, without beginning or ending. How can we resist the conclusion then, that the human soul is a part of this eternal force in Nature which we call God, and that individualized in the human form as it drops the material atoms with which it has clothed itself, it passes into the spirit world, no longer as a simple force, but a spiritual organization, with its specific work to accomplish ? Can we doubt that the world of spirits is around us, influencing human thought and human lives as they become the media, as they pass to purer and more perfect conditions, for transmission to earthly intelligence of as much of the sublime truths of the world of spirits as finite minds can comprehend ? Is it too much to suppose, as human intelligence recognizes more and more in the study and harmony

of Nature's laws, the evolution of higher lines of thought and more perfect spiritual conditions, the entity of the human soul may be in time as clearly established and distinctly recognized by strictly scientific deduction as the phenomena of light and sound, and that the putting off the mortal and the putting on the immortal will no longer be in the darkness of the invisible, but so irradiated with light as to be perceptible to our vision?

The reality of the invisible and its influence on human emotions and human lives, is so closely linked with the work of the physician that he must embody it more or less into his professional life. It meets him at every turn, it overshadows him in the sick room and in his study, and leads him on, step by step, into the regions of a higher philosophy and more profound truth.

THE CODE CONTROVERSY.

THE code controversy will not down, and the American Medical Association will doubtless be obliged to modify its position in regard to it, to meet this change in views, which is rapidly growing, and which will result, if it goes on, in the disintegration and final annihilation of this august body.

The Cleveland Medical Society and the Mississippi Valley Medical Association have recently joined the Medical Society of the State of New York in its onslaught upon the Code, and the combination must have a powerful influence in bringing the National body to its senses.

What is known as the "New Code," which has governed the majority of the profession in this State for several years, and *no code* under which we have managed to exist for the last twelve month, have shown that codes, excepting the great unwritten code which should govern the conduct of gentlemen, are of little consequence. A man should not bind himself so that he cannot be governed by circumstances, whatever they may be. All men should so conduct themselves that they cannot be justly termed quacks, neither should they be guilty of offending against a high moral sense.

There is no doubt but that many physicians need education to a higher appreciation of their common ethical relations in life as well as between each other, and no code has been able to guarantee the faithfulness of its own adherents.

Common courtesy demands tolerance on the part of those who disagree, and one has no right to demand sectarian designation, when the great majority decide that such conduct is improper. The majority should rule, but justice, and even

policy, demands that the rights of the minority should be carefully guarded. Dogmatism should have no place in scientific societies, and the spirit of liberality and toleration should always prevail.

Our leading medical societies and institutions no longer ostracise a man for what he may think or practice as a physician, but it is still a fact that no member will be admitted who denominates himself sectarian, or who accepts or retains membership in societies with sectarian title. If we are correctly informed, the Cleveland Medical Society has even gone further, and allows "any legally qualified practitioner of medicine to be eligible to membership." It seems to us that this plan is more likely to aid in the absorption of the sectarians than the other, which thus far has not done much in this direction. Let us see.

The medical societies ought to take some notice of the flaming manner in which the names of some of their members are flaunted before the public in the daily prints in the advertising pages. It need not be said that it is done without the knowledge of the party mentioned, or if it is, it can easily be stopped. Medical men ought to be careful how they recommend articles, especially such as are sold to the public.

Another prevailing offence to good morals is the habit of physicians accepting bribes from druggists, opticians, and other trades people for their prescriptions. This is being carried on to an alarming extent all over the country.

The Code of Ethics, even where it pretends to be in force, seems to be powerless to rectify the most flagrant violations of good breeding, and parasites are allowed to flourish, to the detriment of morality.

County societies should have committees to watch the daily papers for infringements which are demoralizing; they should have the power to deal with such matters, and in case of failure, bring the subject to the attention of the *Comitia Minora*. In the majority of cases a letter from the committee setting forth the complaint would rectify the matter.

The conduct of the Board of Health toward the profession should be investigated from an ethical standpoint. At present if a case of contagious disease is reported, an inspector is sent to examine the premises and give advice!

It would be much more decent and ethical, for the inspector to call on the attending physician, and then judge of the necessity of examining the premises, or if necessary, perhaps meet the attending physician on the premises for this purpose.

The cases would be rare where an inspector would feel it his duty to visit the premises after

talking with the attending physician. Physicians of standing always give suitable advice to the family in cases of contagious disease, and they can be trusted to do this, and there is no occasion for the Board of Health to ignore them and go directly to the family with advice. Members of medical societies should be disciplined in this regard if necessary.

The Code of Ethics, whether written or unwritten, should be progressive, in order to meet our constantly changing needs in the civilization of to-day. Men of broad views with level heads—men who can see all around—should be selected to look after such matters, and the settlement should accord with a most enlightened civilization. Then can we hope for improvement in our relations with each other, and the great unwritten code will be sufficient for all purposes to which it applies.

PARK, DAVIS & CO.'S LABORATORY FOR THE PREPARATION OF ANTITOXINE.

A RECENT issue of the *Detroit Journal* gives so graphic a description of the preparation of antitoxine in the laboratory of Park, Davis & Co., that an excerpt, we are confident, will interest our readers. The work is under the charge of Dr. Charles T. McClintock, of the Michigan University, associated with a staff of eminent scientists well-known to the world as teachers. "The *Journal*," says the reporter, "saw all these gentlemen at work in their laboratory preparing this much talked of remedy.

"But such a laboratory! To a novice it was certainly unique. Here were sterilizers of every conceivable size and shape, as well as microscopes and other instruments which a chemist alone can call by name. In a room off the laboratory were cages containing the test animals, guinea pigs and white mice by the score. In common parlance a new venture is usually tried on a dog; but in the case of toxine it is tried on a guinea pig, which it was explained has internal construction more after that of the human than other animals. The little fellows were apparently wholly unconscious of the fact that they were to be used as tests to see how long it would take a given quantity of toxine to end their sweet existence.

"Out in a new barn behind the works were seven as fine looking horses as one could wish to see. These had all been selected under the supervision of Dr. Vaughan, of the University, and were chosen for their healthy and youthful condition. None of them had ever been broken to harness, and they were obtained from localities where glanders and other diseases are wholly unknown. They were being given the best of treatment, and were

under the constant scrutiny of a veterinary surgeon acting under Dr. Vaughan's orders.

The *modus operandi* of securing the antitoxine is about as follows: A small colony of diphtheria bacilli, obtained from whatever source found possible, is cultivated in whatever medium decided upon. They multiply rapidly, as any one who has had a severe attack of diphtheria will readily testify. The culture medium is kept at the same temperature as the body. Several of these were presented for inspection to the *Journal*, and they contained a sufficient number of the bacilli to supply all the giraffes on the continent with well-developed cases of diphtheria. These bacilli were busily themselves secreting various substances, including toxine, and devouring the bouillon, or culture medium. After the busy little fellows have enjoyed themselves in the "soup" for several weeks, they have formed quite a quantity of the toxine, which is filtered through porous porcelain to extract the dead bacilli. Here is where the guinea pig comes into play, for it is by him that the strength of the toxine is to be tested. He is properly weighed and given a dose accordingly. Of course he dies, but that is what he is there for, and he is immediately carried, cage and all, and placed in a sterilizer. The toxine, when its strength has been ascertained, is injected into the backs of the horses, just at the base of the mane. The horses don't like the injecting process, but they are given it just the same. A mild form of sickness follows the injection, but the horse soon recovers, and in course of time the size of the dose can be greatly increased. They are given plenty of exercise and wholesome food, and are looked after as carefully as a mother would watch a child suffering from the simon-pure diphtheria bacilli in the throat. The next step is to withdraw a portion of the horse's blood, which is carefully set aside in air-tight vessels. The red blood corpuscles gradually sink to the bottom, and the serum, which is a light yellow color, containing the antitoxine, remains.

"This antitoxine is then put through various stages of preparation, and is finally run into a small glass tube, in which shape it is to be presented to the trade. This, however, will not be for some weeks and probably months yet. The tube containing the antitoxine is corked with a sterilized cork, and every precaution taken to keep the solution free from contamination, even with the air. A needle syringe is placed in a like tube, sealed in like manner, and these two tubes are to be placed in a wooden overcoat, which is about the way it will be sold to the trade."

Dr. Edson says the antitoxine, prepared by order of the Board of Health, is superior to the imported.

SOME FORMS OF GOUT.

WE find in the March number of the *University Medical Magazine*, a very interesting article on the correct diagnosis and treatment of some rare forms of gout, by M. Debout d'Estrees, of Contrexéville, the treatment of which was comparatively easy after the trouble had been correctly diagnosed.

The first case was that of a man sixty-three years old, who went every year to Contrexéville to obtain immunity from the evils of excesses he was yet to commit. The patient said that after sitting for a long time at his dentist's the day before, he had been seized during the night with an intense pain in the region of the right parotid, which was hot, red and swollen. No external application having brought relief, the author suspected a gouty element. However, he made the diagnosis of an abscess of dental origin, which would probably need surgical interference; but when he visited the patient two days later the parotid was flat, and gout had invaded the left knee. Two months afterward M. d'Estrees saw the patient again at Contrexéville, and found that the gout had invaded successively the left parotid and the right knee. The patient felt well then, but complained of a very disagreeable salty taste in the mouth at the beginning of each meal. When examining the patient the author pressed upon the carotids, and at once excited the salty taste, which he subsequently demonstrated was produced by saliva loaded with urates, the epiphénoménon of the gouty attack.

On another occasion he was called to see a patient with gouty parotitis. In this case the attack in the parotid was preceded by an attack in the wrist of the same side. As external applications had been used without success, the author did not hesitate to use internal remedies, and prescribed tincture of fresh flowers of colchicum, fifty drops three times in twenty-four hours, and with each dose four grains of quinine sulphate. The treatment, he says, proved successful.

In another case gout began in the testicle, passed to the toe, and ended in the lung. In this case it was not, as in the cases described by Professor Potain, in the apex or at the base that the gouty congestion took place, but in the central part, and it did not extend over a surface of more than six centimeters across. Over and under this band of congested lung the respiratory murmur was perfectly normal.

What must a practitioner do, asks the author, if he meets with such a case of gout? In most cases, he says, if external applications are insufficient,

he must use internal remedies. After he has calmed the attack he must procure the elimination of the uric acid and induce the patient to adhere to a selected diet and to strict hygiene.

TURPENTINE IN POST-PARTUM HEMORRHAGE

D. R. N. MAYNE, in *Trained Nurse*, says: "For some years I have used spirits of turpentine in post-partum hemorrhage, and in every case with the best results. When the ordinary means, i.e., friction over the uterus, irritation of the uterus by introduction of the fingers, cold, hypodermic injection of ergotinine, etc., failed, by saturating a piece of lint with the turpentine, and introducing it in my hand into the uterus and holding it against the walls, rapid contraction took place, and all hemorrhage instantly ceased. In one or two cases, when the patient was almost pulseless, it seemed to act as a stimulant. On no occasion did its action fail or did it cause the slightest inconvenience, except in one, when the side of the patient's thigh was slightly blistered by some that came in contact with it, but it gave very little annoyance. I consider it is much quicker and surer in its action than any other remedy; and does not cause any injurious result, and is much more easily applied. In country practice, getting hot water or using injections often means loss of valuable time."

GONORRHEA.

A WRITER in the *University Medical Journal*, gives his treatment of this often tedious and vexatious disease: If seen during the inflammatory stage, he gives a grain of aloes to produce active purgation, while it also improves the appetite, renders the inflammation less severe and prevents chordee and gonorrhœal synovitis. A fine layer of cotton wool is twisted about a probe and covered with an ointment of mild nitrate of mercury, to which has been added one grain of morphine to the ounce, and passed into the urethra three or four times a day. If the case has not been seen until after three weeks have passed, give an injection of liquor plumbi subacetatis, one drachm to six ounces of chloroform water, with small doses of copaiba by the mouth. If the copaiba produces dyspepsia and pains in the loins, aloin will produce relief.

OUR INCREASING NERVOUSNESS.

PROFESSOR ERB has delivered an address in which he states his view that there has been a clear loss of tone in the nerves of the highly civilized nations. This disorder is something more than hypochondriasis or hysteria, and is marked

by increased sensitiveness, weariness, lack of power of endurance, and defective recuperative power. The later development of neurasthenia, however, is not more symptomatic than was the hysteria of a past generation. The race has survived the one and probably will the other. Increased insanity and nervous disorder is not a necessary correlation of an increasing complexity of society. Better regulation of life will ensue, and by experience of what is inimical to sustain life, we shall probably, before it is too late, learn what is needful to conserve it.

DIABETES.

SIR GEORGE JOHNSON proposes a new test for urine, in which, to an equal volume of urine and saturated water solution of picric acid, half its volume of liquor potassi is added. An orange red color instantly appears as a result of the incipient reducing action of the picric acid at ordinary temperature. The color is deepened by boiling, and if after about a minute at this temperature a bright red color appears through the test tube when held up to the light, the urine is free from sugar. A solution containing two grains of glucose to the ounce of water is rendered so dark that no light is visible through the full diameter of the tube. It is asserted by the author that traces of sugar do not exist in normal urine.

THE attendance at the annual meeting of the New York State Homeopathic Medical Society in Albany, February 12th and 13th, never large and by no means a just representation of the school in the State, was this year even less than usual, the number varying from thirty to fifty. There was about the usual number of papers read, but none requiring special mention, with no special interest awakened by any of them. One of the most interesting and valuable papers read was that of Dr. Millbank, on pure water, showing by tables how much typhoid fever had decreased by filtering the water. Dr. Charles E. Jones, of Albany, was elected President. Drs. J. T. Greenleaf, E. A. Wolcott, A. R. Wright, and F. W. Adriance were nominated State examiners.

THE Health Board are now prepared to furnish antitoxine at a reasonable rate, and of a better quality than the imported, to all applicants. Dr. Biggs, the Director of the Bacteriological Department, says the use of antitoxine has reduced already the death rate from diphtheria forty per cent.

A cousin of Mrs. Partington, on being asked the condition of her health, said she was very well indeed, except for occasional attacks of *vagina pectoris*.

BIBLIOGRAPHICAL.

THE Daily Lancet, edited and published by Joseph F. Edwards, A. M., M. D., of Philadelphia, has just been started. It will contain a condensed summary of the medical literature of the world. We trust the experiment may succeed, and Dr. Edwards has our best wishes.

SUGGESTIONS TO HOSPITAL AND ASYLUM VISITORS. By John S. Billings, M.D., and Henry M. Hurd, M.D., with an Introduction by S. Weir Mitchell, M.D. Philadelphia: J. B. Lippincott Company, 1895; 12 mo., pp. 48. Price, 50 cents.

A most suggestive little brochure which meets its object.

THE ACCOUCHEUR'S EMERGENCY MANUAL. By W. A. Yingling, M.D., Ph.D. Philadelphia: Boericke & Tafel, 1895; 16mo., pp. 323.

The author says: "The object of this Manual is to give assistance in the emergency at the bedside," and the work deals exclusively with the indications for the use of drugs under such circumstances.

THE Literary Digest offers as a premium to all new subscribers the Hoyt-Ward "Cyclopaedia of Practical Quotations," published at seven dollars. The cyclopaedia contains 20,000 quotations and 50,000 lines of concordance; the best book on quotations published. The *Literary Digest* as a condensation of the ripest thought of the world in every department of literature and science is without a peer, and in itself is for the family the cheapest magazine published at its subscription price of three dollars a year.

AN ILLUSTRATIVE MONOGRAPH ON KOLA. By F. E. Stewart, M.D., Ph. D., formerly Demonstrator and Lecturer on Materia Medica and Pharmacy, Jefferson Medical College, Philadelphia: pp. 78, 12mo. Detroit, Mich.: F. Stearns & Co., 1894.

This little brochure contains the working basis of one of the newer drugs, and one that is exciting a good deal of attention at the present time. It is not only interesting, but useful and instructive, and our readers can obtain copies *free*, by addressing the publishers and mentioning this journal.

LEA BROTHERS & CO., Philadelphia, Pa., announce for publication, by subscription, "A System of Surgery," by American authors, edited by Frederic S. Dennis, M.D., Professor of Surgery in the Bellevue Hospital Medical College, in four volumes, each containing about 900 pages, profusely illustrated in colors and black. Volume I. ready in April. The new problems which have arisen within the past few years are fully considered by men who have aimed to make the work a complete guide to the most advanced development of the science and art of surgery.

THE *Century's* "Life of Napoleon" has caught the popular fancy in a most surprising way, and copies of the magazine have been hard to get unless purchased within a few days of issue. "With each instalment," says the *Critic* of March 2d, "the value and thoroughness of the work becomes more manifest." The present revival of interest in Napoleon has been only a lucky coincidence for the *Century*, as Professor Sloane's history was projected, and its publication in 1895 decided upon, long before there was, even in France, any unusual interest in the character of Bonaparte.

HYGIENE, WITH ANATOMY AND PHYSIOLOGY. Being an Amplification of Edwards' Catechism of Hygiene. By Joseph F. Edwards, A.M., M.D., Member of the State Board of Health of Pennsylvania; Member of the American Public Health Association; Foreign Associate Member of the French Society of Hygiene, etc., etc. Intended for Schools and General Reading. New York: Edward P. Slevin, 28 Barclay Street.

An admirable text-book for its purpose, written in simple language, well illustrated, and adapted to every school in the land. We heartily commend it.

DOSE-BOOK AND MANUAL OF PRESCRIPTION-WRITING.—

With list of the official drugs and preparations, and also many of the newer remedies now frequently used, with their doses. By E. Q. Thornton, M. D., Ph. D., Demonstrator of Therapeutics, Jefferson Medical College of Philadelphia; Acting Assistant Surgeon U. S. Marine Hospital Service. *Saunders' New Aid Series*; pp. 334. Philadelphia: W. B. Saunders, 1895.

This is the most valuable little book of its class that we know of. The text is well arranged for study and concisely stated. As a text-book it has no equal in its department.

ANTISEPSIS AND ANTISEPTICS. By Charles Milton Buchanan, M.D. With an Introduction by Prof. Augustus C. Beenays. The Terhune Co., Newark, N. J., 1895.

The first four chapters give a condensed history of antiseptics and antisepsis, from the earliest times to the present, followed in succeeding chapters by a discussion of the products of vital, cellular and bacterial energy; infection, susceptibility and immunity; antiseptics and their relative value and use in general medicine, surgery, obstetrics and gynaecology. The work is admirably written, and full of valuable and reliable information.

A MANUAL OF BANDAGING. Adapted for Self-instruction.

By C. Henri Leonard, A. M. M. D., Professor of the Medical and Surgical Diseases of Women, and Clinical Gynaecology in the Detroit College of Medicine. Sixth edition, with 139 engravings. Cloth, octavo, 189 pages. Price \$1.50. The Illustrated Medical Journal Co., Publishers, Detroit, Mich.

The main feature for commendation of this book over other similar works is that each illustration shows the direction of the various turns of the bandage with arrow-heads, and each turn is properly numbered; this renders the book a self-instructor to the reader of it, who has but to put the various bandages about the limbs of an office companion a few times, when the "trick" of its application upon a patient has been learned. It takes the place, in this way, of hospital drill.

THE ENCYCLOPEDIA OF FACE AND FORM READING, or personal traits, both physical and mental, revealed by outside signs through practical and scientific physiognomy, being a manual of instruction in the knowledge of the human physiognomy and organism, embracing the discoveries of located character in the body and face, as shown by the five natural divisions of the countenance. By Mary Oimsted Stanton. Second edition, revised and illustrated. The F. A. Davis Publishing Company, 1895.

This is one of the most important and instructive books to every student, to every profession, and to every calling in any language. It unfolds the index to character and to success in the absolutely truthful language of nature, as expressed in the human face and form. In one large volume, combining all that is known to-day regarding face and form reading, scientific facts are clothed in such simple language as to make the work adapted equally to the use of the beginner and the adept. The encyclopaedia answers the needs of its user not only while mastering the rudiments of the study, but also becomes more valuable as he becomes more proficient in its more intricate details. With the aid of the glossary, the index, and the suggestive index and outline of the study, it is made available to all readers; all finding something to meet their special needs, something to aid and guide them in their life work in the practical application of the principles of evolution, of anatomy and physiology, of mechanics, of physical and mental philosophy and kindred sciences, spread out before them in clear and forcible language. It is seldom we find a scientific work so rich in thought, so

replete with telling illustrations, and leading on, step by step, to such logical and sublime results. The basic principle underlying the reading of human character and the reason of its different phases is clearly unfolded, showing the physical causes of mental peculiarities, and that physical and mental combinations produce certain physical and mental results. This process of evolution, clearly traced through right training, education, marriage and generation, shows how each individual may become an important factor in that evolution of our race to higher and still higher planes, until the sons of man become in a fuller and higher sense the sons of God.

THE FUNK & WAGNALLS' STANDARD DICTIONARY.

The energy with which this work has been pushed forward to final completion is something unparalleled in book making, more especially when we consider its completeness in every detail. Every domain of literature and science has been thoroughly explored, and the ablest authors, through their books and speeches, have contributed to the fulness and accuracy of a dictionary which for years to come must be looked upon as the standard lexicon of the English language. With an army of picked men, backed by an unlimited amount of capital, one million of dollars having been expended before a single volume was ready for delivery, covering over a period of five years, every word in the English language has been carefully studied and clearly defined. The thoroughness of this work may be estimated from the fact that the Standard has over 300,000 words, 75,000 more than the Century, so recently published, and 250,000 more than Stormouth. This fact shows the exhaustive manner in which each department of science and labor has been treated, in words and combinations of words. As, for instance, in electricity, 4,000 new terms have been described. We notice one peculiar feature of great advantage is the manner of grouping, in which one word includes a reference to a cyclopaedia of information. A single quotation will illustrate our meaning: "Mythology among the Greeks took the form of idealization of the beautiful and aesthetic (see list of gods at Olympian); as developed by the Romans it deified virility, war, and the principles of law and order (see list of gods at Pantheon); in India it deified the forces of tropical nature (see Aditi, Agni, Asura, Brahma, Deva, Dyaus, Indra, Kama, Krishna, Nirvana, Purana, Siva, Tripiska, Veda, Vishnu); in Egypt it centered about the Nile and its denizens (see Anubis, Apis, Isis, Osiris, Ptah, Ra, Seb, Serapis, Set, Typhon); in Scandinavia it idealized the struggle with the Arctic forces of nature (see Asir, Asgard, Muspel, Raynabox, Valhalla, Van); see also anthropology." Under other forms of grouping, we notice a gathering up under a particular subject of the principal technical words employed in it. Another form of grouping, saving much time, is that by which the derivatives of a word are run in under the main word, including the compounds and terms belonging to the subject. The definitions of words are as clear, comprehensive and concise as it is in the power of language to make them, and the spelling and pronunciation as correct as the careful study of the origin and meaning of words by the ablest philologists can formulate. In conclusion, we heartily endorse the opinion of the *Boston Herald* that the Standard Dictionary will find its way everywhere by its abundant and original merits. It certainly is a monument of American industry and learning.

Every doctor who has attempted it will testify how tedious and unsatisfactory the old way of cutting and winding a bandage is.

Here is an easy way. Purchase as many yards of muslin, cheese cloth, or other material you want to make the bandages of, in the proper length, roll it up tightly, the full width, and cut it with a bread knife. Each bandage will be easily and nicely cut off any length you desire. Can also cut absorbent cotton, or cotton batting in the same way. This plan is in use in many of the large hospitals and proves a wonderful convenience.

SOCIETY REPORTS.

THE LOUISVILLE CLINICAL SOCIETY.

(Stenographically reported by C. C. Mapes for this journal.)

Two Cases of Appendicitis—Femoral Aneurism.—Dr. W. C. Dugan: I have operated upon two cases of appendicitis since the last meeting of this Society, which present two different conditions, and they may be of interest on that account. In both, the pus was not encapsulated. The first one had a large abscess, the patient giving about this history: There had been recurrent attacks of what he thought was "belly-ache;" he would be laid up for a day or two, then get well apparently and go about several months, when another attack would come on. I saw him and agreed in the diagnosis of appendicitis; induration could be outlined in the right iliac fossa, and as he had suffered so many attacks we decided to operate at once. He was sent to the infirmary, and while on the operating table, when chloroform was being administered, he struggled violently, and as soon as I cut through the peritoneum, pus poured out. I found, however, that this pus was confined to the right iliac fossa, and am sure that the rupture took place on the table. I say I am sure it took place on the table for the reason that the pus was confined entirely to that locality, and there was a large piece of omentum that had capped the abscess, which was torn off, so the man was not subjected to any risk of general peritonitis, that we would expect if rupture had taken place some time before.

This patient got along without an untoward symptom, making a very quick and easy recovery. I took away the appendix and the large mass of omentum that had formed the cap or part of the wall of the abscess, and then cleansed the site of the abscess by localized sponging. Did not do general washing as is generally practiced. I like the German plan best, and the more I operate the less I irrigate.

Just in this connection I wish to say that the appendix was necrosed quite up to and even involving a small part of the caecum. When traction was made it came in two, and when the ligature was placed at its base it cut through, showing the condition of the parts. There was no bleeding even then. Then, to close the opening we applied the sutures, and I had great fear that they would give way. But we packed it thoroughly, so that if it should give way it was protected. It gave us no trouble and in forty-eight hours it was removed.

The second case is one of unusual interest to me. The man had a primary rupture of the appendix without any adhesions at all; with a history exactly like the case I have just reported. He had had as many as ten or fifteen attacks. He was taken one night with what he thought was an attack of colic, and applied the ordinary remedies, calomel, etc., such as he had taken to relieve former attacks. The next morning he was so much worse that he called in a doctor, Dr. Holt, of Anchorage, Ky., the first time he had ever consulted a physician in one of these attacks. The doctor found him in collapse, cold, clammy perspiration, pulse hardly perceptible; as he expressed it, "a very hard, wiry pulse." He diagnosed it as a case of general peritonitis, and told the patient that an immediate operation was imperative, and even that gave him but a forlorn hope. This was at five o'clock. I was called and saw him a little after nine o'clock. He was then resting comfortably under one grain of morphine, which had been administered hypodermically in two separate doses. He had a very drawn, anxious expression of the face; cold, clammy perspiration, very rapid pulse, abdomen not distended but very rigid, so that we could outline absolutely nothing. There was general rigidity of the abdominal muscles, perhaps a little more marked on the right side. We decided to put him on the operating table and under anesthesia try to locate an induration in the iliac region. We thought it was a case of appendicitis, but we were even under chloroform unable to locate anything. We recognized that it was a case of peritonitis, and believing opera-

tion to be demanded, we opened the abdomen. We selected the right side, making our incision in the right semi-lunar. Reaching the peritoneum it was found to be opaque and considerably thickened, and fluid was detected through it. It was nicked, and as soon as the cavity was opened it gave vent to a very offensive thin, dirty, watery, fetid pus, which spurted up several inches through the small opening. It was enlarged and the pus simply poured out all over the table. This was the next morning after the attack. Coils of intestine presented which were very red, with here and there spots which showed intense inflammation, with numerous infarctions in the wall of the bowel. On further examination I found that over the intestines were strips of dead tissue, so that you could take up the intestine and pull off a piece four inches long of this dead portion which looked like a strip of cotton; like you would take a small film of cotton over the finger and pull off small fibres. It was certainly necrosis of the peritoneum overlying the gut, for the entire peritoneum was dead in appearance—that is, thick, opaque and not the transparent and glassy look of the normal. We stated that this man would die, as a matter of course. However, we irrigated the cavity thoroughly with a large quantity of water, I suppose as much as five gallons of sterilized water. We then put in a gauze tampon reaching to four or five different parts of the cavity, bringing all of them out through the wound in right side, and left him in fairly good condition. The physician in charge asked how long before the gauze should be removed, and I told him that I did not think the occasion would ever arise for removing the gauze; but he said: "If the patient does not die, when shall we take the packing out?" I then replied that "it might be removed at the end of forty-eight hours." The patient was living and improved in that time, so the doctor removed the gauze and called me up by telephone, stating that the patient was doing well. While his bowels did not move at that time there was very little distension and he was passing gas per anus, and everything indicated that he was going to get well. From this time on the patient had no trouble and made an uninterrupted recovery.

In regard to the appendix: It was found to be rather longer than usual, and just along its mesenteric border, at a point about the middle, was a necrotic patch about the size of a large grain of corn, and it was ruptured at this point.

Now, here was a man without an adhesion about the appendix which had ruptured, without the presence of an enterolith, unless it had escaped through this rupture and liquified. An attack occurred at four o'clock in the afternoon; the next morning he was operated upon with general septic peritonitis. I take it that a great deal of this fluid was made up of fecal matter, as I am sure that so much pus could not have formed in that length of time; and then the fluid looked not unlike the liquid contents of the small bowel; but there can be no doubt about there being general septic peritonitis, and that there was necrosis of the peritoneum is plain.

No. 3.—This specimen is a traumatic femoral aneurism, which I removed at the City Hospital some time ago. The patient was an Irish woman, a domestic, and while working fell against the corner of a table, which struck her in Scarpa's space on the right side. There was very little force, but she had great pain and was forced to give up and go to bed. When she entered the hospital it was noticed that she had a pulsating tumor in Scarpa's space. A compress was carefully applied, but notwithstanding this the tumor rapidly increased in size. We finally decided to excise it. She was put upon the table and we made an incision just over Poupart's ligament, passing rapidly down, ligating the external artery just above the ligament, then extending my dissection longitudinally, expecting to have no trouble in enucleating the tumor, I found in dissecting lower that another vessel presented, which was promptly ligated. I then felt certain I would have no further trouble. After dissecting a little further, I found a third vessel, which was also tied. I then aimed to get below the aneurismal sac, working very carefully so as not to rupture the sac, when the blood spurted out through a small opening, showing still another connection. I then continued my dissection, after checking the hem-

orrhage, and found still another vessel about as large as the first one I had ligated. This was tied and the aneurismal sac removed.

I present the sac for your examination; you will observe here the first vessel ligated, and by turning the specimen over, you will see another large vessel. I thought at the first examination after removal, that this larger vessel was the external vein, but a more careful inspection reveals the fact that this is not so. I am of the opinion that there is a double external iliac artery, and the femoral artery is divided very high up, and that they communicate with each other.

Dr. H. H. Grant: I do not think there is much to be said about the two cases of appendicitis; the second case that Dr. Dugan reports certainly made a most remarkable recovery, and encourages us to operate on cases that we have previously looked upon as hopeless. It seems to me that it is barely possible rupture might have taken place prior to the time mentioned; perhaps there was inflammation in the peritoneal cavity of a little longer duration than would appear from the history of the case. It seems to me remarkable that the peritoneum could be flooded with pus in that period of time. The very considerable amount of pus and the general peritoneal distension, together with the symptoms of peritonitis, rapidity of pulse and feebleness of the patient would indicate that septic infection had been going on for a longer time than appears from the history. The importance of operating in cases of this kind is emphasized by the remarkable results which are sometimes obtained; at the same time we all find ourselves unable to determine in all instances whether a condition of this kind is going to occur. I saw a few days ago a boy nineteen years of age with acute distension of the abdomen, apparently beginning peritonitis, tenderness over the right iliac fossa. The patient had been kept under the influence of opium for twenty-four hours; the pain had greatly diminished at the time I saw him, but the distension had increased; pulse 130 and feeble, and his general condition was apparently good; he had improved under the influence of opium. I was sure this patient had appendicitis, and thought he probably had septic infection. I did not look upon it as probable rupture, because the pulse was not feeble enough to present this severity of shock. Operation was advised and declined by the patient. The same treatment was continued—application of poultices, also the administration of opium, and the patient has gone on to recovery. In this case I think it would have been wiser to operate, or at least I thought so at the time, but the result has been a very good one as it is.

Dr. A. M. Cartledge: The cases reported by Dr. Dugan suggest a great many important points in connection with the pathology of general peritonitis. The trouble which will ensue from the emptying of pus into the peritoneal sac depends, first, upon the length of time it remains there, and second, upon its microscopical character before it is poured out. First of all, it is generally recognized, and it has been my experience that when septic pus is poured out into the peritoneal cavity without protecting adhesions, if not removed within twelve hours the patient will die. It seems that eighteen hours had elapsed in this case. I doubt, as Dr. Dugan made an incision only on the right side, and drained only from this side, really whether the septic matter had spread to the entire peritoneal sac. It may have extended over as far as the median line, and still been accessible from his incision, but the fact that general tympany had not taken place would point to the conclusion that the peritonitis was not general. That it would soon have become so there can certainly be no doubt, as no protecting adhesions were present. This was a case evidently of colon bacillus infection, which is the bacillus found in most cases of perforative appendicitis; it was a case of rupture of the appendix and not a periappendicular abscess, because there were no surrounding adhesions. Now the material that he speaks of, the gluing of the intestines together, was a fibrous exudate which is one of the pathologic results, especially of the colon bacillus. While it is accredited with producing liquefaction, still its first effect is to cause an exudation of fibrin, and it is this material which forms the plastic agglutination of

the intestines, if the case is allowed to continue septic and liquefying peritonitis takes place, as the result of secondary infection. In the case reported by Dr. Dugan, the fluid was evidently not pus; as I understand, it was a yellowish, watery-looking substance, not the typical greenish tinged pus characteristic of suppurative peritonitis from pyogenic bacteria; it was a dirty-looking water, with quantities of lymph or fibrous flakes in it, which exuded from the intestines. I think it is but fair to say that we can hardly class this as a recovery from general septic peritonitis. I believe if the entire peritoneal cavity could have been explored, the trouble would not have been found to obtain over the whole peritoneal sac. I base this statement upon the fact that general tympanites had not taken place, and from the fact that eighteen hours had elapsed from the time rupture was supposed to have taken place. I think in ninety nine cases out of a hundred, if operation is delayed until septic peritonitis has extended to all parts of the peritoneal cavity, and such will usually occur after twelve hours have elapsed, operative measures will be absolutely hopeless. The case reported teaches us that we should drain these cases thoroughly, as that gives the only hope of recovery. While the outcome in the case reported leaves no room for criticism as to the treatment employed, I would suggest that if we attempt to save these cases of general peritoneal infection we should resort to multiple drains; we should irrigate the cavity with gallons of water; where pus is found, free irrigation and drainage of the cavity offers the only hope of recovery.

Dr. W. C. Dugan: In regard to the second case I reported: There can be no doubt about the patient having had general peritonitis. I examined coils of the intestine, not only on the right side, but generally, and was fortunate enough to have across the table from me one of New York's most brilliant young operators—who has stood across the table from McBurney, Bull and many others a number of times, and who was also with Tuttle for a long time—and we satisfied ourselves that this was peritonitis; moreover, that it was a case of general peritonitis, from the condition in which we found the blood vessels of the intestines. There were infarctions all over the intestines; at one time the patient was so weak that the anesthesia was withdrawn, and in this stage of the operation a large amount of the small intestines protruded, notwithstanding the fact that we were using every effort to keep them in. So much of the intestine was examined at different stages of the operation that there can be no question about the peritonitis being general.

In regard to multiple openings: I did not think it necessary, for the reason that we could reach every part of the cavity by means of drains through the one opening. We took pieces of gauze and passed them to different parts of the cavity, so that drainage was complete through the single opening. I do not think it is necessary to make two openings in these cases.

Concerning the lymph which Dr. Cartledge speaks of: It was too firm to be of the character he mentions; it did not brush off like lymph does as a rule. I feel sure that this case can be recorded as a recovery from general suppurative peritonitis by resorting to operative measures. As has already been intimated, had I known the conditions that we encountered in opening the abdomen of this patient I would never have operated, as it must be admitted that such cases nearly all die, as Dr. Cartledge has said, and after the incision had been made I felt sure, and so expressed myself at the time, that this man was going to die. Of course we can never tell exactly the condition that will be encountered upon opening the abdomen, and the result in this case is very encouraging. It certainly shows the wisdom of early operation in such conditions if we expect any good to result.

A conscientious and pious lady who had been a Methodist, united with the Baptist Church, and of course was immersed, after which she came tearfully to the parson and said: "Oh, pastor, pastor!" "What is the matter now?" was the reply. "You have been sprinkled and immersed. What more do you want?" "Oh, pastor," she said, "I want to be circumcised."

THE NEW YORK ACADEMY OF MEDICINE

At the stated meeting, February 21, 1895, of the New York Academy of Medicine, which was under the direction of the Surgical Section, a discussion of amputations took place. This included a statistical study of 700 cases of amputation from eight hospitals of this city. Among the topics discussed were the following: Mortality; gangrene of flaps; secondary suture; duration of treatment; drainage and dressings and shock.

The question of mortality was discussed by Dr. J. F. Erdman. He stated that of 703 amputations performed at various hospitals in this city, there were 109 deaths, a mortality of 15.5 per cent. Of these 703, 196 were of the upper extremity, and 507 of the lower. The highest mortality followed amputation at the hip, where there were eighteen cases with eight deaths, 44 per cent. There were seven amputations at the wrist with no deaths; 156 of the leg with nineteen deaths, 12 per cent; 223 of the thigh with forty-eight deaths, 21.5 per cent.

Gangrene of the flaps was discussed by Dr. H. Lilenthal. He stated that of 367 cases where the flaps consisted of skin alone, sixty-nine, or about 19 per cent., sloughed wholly or in part. Of 208 cases where the flaps consisted of musculo-cutaneous tissue, thirty-one, or about 15 per cent. necrosed. These figures show an advantage of four per cent. for the latter method. In twenty of the cases where gangrene occurred it was attributed to constitutional disease.

His conclusions were as follows:

1. That other things being equal, the skin and muscle flap is less likely to necrose than one composed of skin entirely.
2. That in cases where amputation after traumatism is indicated, correct judgment as to the vitality of the tissues is a determining factor in the avoidance of gangrene.
3. That constitutional disease frequently causes necrosis.
4. That in amputations below the knee, gangrene is more apt to occur than elsewhere, and the musculo-cutaneous flap is to be preferred.

Secondary suture after amputation was discussed by Dr. Franz Torek. Of the 703 cases above referred to, thirty-seven were closed by secondary suture. Twenty were closed within forty-eight hours, and seventeen later. The results were as follows: No death. Primary union was obtained in seventeen cases, 46 per cent.; primary union with sinus in twelve cases, 32 per cent.; union by granulation in eight cases, 22 per cent. The writer's conclusions were as follows: Secondary sutures should be employed instead of primary sutures:

1. When on account of persistent parenchymatous hemorrhage it is impossible to get a dry wound. This is apt to happen if an Esmarch tourniquet has been in place for a long time.
2. In case we fear secondary hemorrhage.
3. If we have amputation through edematous tissue we should tampon until the edema has subsided.
4. When the circulation is questionable on account of atheroma of the vessels.
5. When in traumatic cases flaps are used whose vitality is questionable, owing to the injury they have received in the accident.
6. If the amputation wound is not aseptic.
7. In pyæmic cases.

While the above are the main indications for the use of the secondary suture, it may also be employed without any of the indications, and has been so employed.

The subject of drainage and dressings was discussed by Dr. P. R. Bolton. He stated that while drainage is often indispensable, and in many cases enables the surgeon to secure primary union in wounds which would otherwise heal by granulation, still it has disadvantages which have of late led to its omission in many cases. In aseptic cases drains may possibly be the means of conveying infection, and their timely removal necessitates a change of dressing which itself further exposes the wound. Of 490 cases of amputation treated by suture and drainage, 167 healed by primary union, 128 by primary union with sinus, while 195

healed by granulation after more or less extensive separation of flaps by accident or to secure more efficient drainage. Of these 490 cases, 142 were of the upper extremity and 348 of the lower. Of fifty-six cases treated by suture, without drainage, thirty-four healed by first intention, eight by first intention with sinus, and fourteen granulated. The determination of the question whether to use drainage or not must be decided in each case by the nature of the disease or injury for which the amputation is performed.

Duration of treatment was discussed by Dr. C. C. Carmalt. He stated that in the selection of this topic the individual idiosyncrasy enters so largely that a proper tabulation is very difficult. In sixty cases in which the proper details were obtainable, the average stay in the hospital was forty-two days. Among the factors which modify the duration of treatment may be mentioned (1) environment, which includes the surroundings and condition of the patient previous to his admission to the hospital, and also after his admission. (2) Lack of rest; for instance, cases complicated with delirium tremens, causing more or less movement of the stump. (3) Experience of operator. (4) Age of patient. Shock and hemorrhage apparently do not prolong the healing at all. Neither does syphilis, alcoholism, or diabetes. Drainage tubes delayed healing in twelve cases. Uneven bandaging delayed healing in three cases. The size of the wound is also an important factor in the duration of treatment.

Among the circumstances affecting mortality mentioned by Dr. S. Tousey were the following: 1. Age. 2. Site of amputation. 3. Cause for which amputation is performed. 4. Shock. 5. Multiple injuries.

Dr. Charles McBurney opened the general discussion of the subject. He stated that one might properly claim that the mortality percentage of amputations to-day is lower than it was during the period embraced by the statistics that have been quoted, on the ground that the traumatic cases selected for amputation at the present time include many of so severe a character that they would not have been operated on five or ten years ago. Gangrene of the flaps is a complication which he has seldom seen occur. Among the more frequent causes of this might be mentioned injury to the flaps, interfering with the blood supply, or it may be the result of a general atheromatous condition of the arteries. That the local cause is often produced by the operator is borne out by the statistics, which show that skin flaps necrose more frequently than those composed of both skin and muscle. In cases where the skin flap is made use of, extreme care should be taken not to injure the subcutaneous tissue, which carries the vessels. The other cause of gangrene, namely, the atheromatous condition of the arteries, or the occlusion of vessels near the point of amputation, may be guarded against to a considerable extent by ascertaining beforehand, as accurately as possible, the condition of the circulation in that region. By making a transverse incision it is easy to learn whether the circulation is good or not.

Dr. McBurney said he looked upon the secondary suture as an important factor in the reduction of the mortality rate. Clean wounds, he thought, can be safely closed immediately, although personally he always employs drainage. The objections that have been raised against drainage can only apply to those cases where it is left in for too long a time. In aseptic wounds, no drainage is required after the first twenty-four or forty-eight hours. The speaker said that much difference of opinion exists regarding the management of cases suffering from shock. From his experience he has no reason to think that, under ordinary circumstances, the presence of an injured limb exerts any additional injurious effect on the patient whatever. He has never believed in the idea that the presence of a contused or lacerated limb, either aggravated or prolonged the condition of shock, and therefore he saw no particular object in trying to get rid of the injured member as quickly as possible. If the limb is loosely attached by shreds, it can be trimmed off at the earliest opportunity, all bleeding vessels tied and the wounds thoroughly cleansed and stuffed with gauze; then, instead of doing a formal amputation, the patient can be allowed to go on for an indefinite period, until the shock has been recovered.

from. Later on, a secondary amputation can be performed, if it then seems to be necessary. The speaker expressed the opinion that many cases of shock, so-called, are really cases of hemorrhage, and active means should be employed to overcome it. For this purpose the introduction of salt solution into the patient's veins has given him excellent results. He usually employs about a quart or a quart and a half of the solution.

Dr. L. A. Stimson said that so far as shock is concerned, he was surprised to hear the statistics which indicate that a delay of twelve hours or more was followed by a notable increase in the mortality rate. He was taught that an amputation should not be done during the condition of shock, and that the temperature was usually a fairly safe guide to indicate the proper time for interference. That so long as the temperature was sinking or remained low, an operation should not be undertaken, but that when it began to rise and approached the normal, then we could amputate with comparative safety. As for drainage, he thought that loose suturing and snug bandaging will give us all we desire in most cases. He does not employ drainage, but substitutes for it rather loose suturing, placing the stitches from three-quarters to an inch apart. The dressing is left undisturbed for ten days or two weeks, when the wound is practically healed.

Dr. Robert Abbe said he fully agreed with the statement made that the musculo-cutaneous flap is preferable to one composed of skin only. The latter will often slough because of the compression it is exposed to over the end of the stump by the bandages, which form folds and thus interfere with the circulation. Where it is possible, he makes it a rule to use the muscle and skin flap in one complete mass. Another point of importance is the deep buried suture of the muscle over the end of the bone. Although the muscle atrophies, it leaves a mass of dense tissue, which is of service in hiding the bone and forming a valuable cicatrix. With regard to the secondary suture, he thought it desirable in certain cases, where we are suspicious of the integrity of the tissues. In connection with drainage, he was surprised that so much was said about a sinus remaining. A temporary sinus usually remains when the tube is removed, but this is of no importance. He regarded drainage as very essential, as it may often save us the trouble of re-opening a wound. Flap gangrene is especially common after foot amputations, and this is probably due to the fact that the bone lies directly underneath the skin, and there is little or no cellular structure to aid in the nutrition of the flaps.

Dr. F. H. Marcoe said that cases requiring amputation may properly be divided into the traumatic and the pathological. The latter again may be divided into the septic and non-septic. In those of the last class it has been his rule to amputate through healthy tissue and then close the wound entirely. For some years past he has given up drainage entirely in clean wounds, using buried sutures and accurately approximating the skin. In treating traumatic cases his custom is to carefully cleanse the injured parts, cut away all loose tissue, then pack the wound and wait for the patient to recover from the shock. By this method we are often able to save a good portion of the limb, and sometimes the entire limb. Salt injections are of the greatest service in these cases. He is accustomed to employ drainage for twelve or twenty-four hours; when the operation is through diseased tissue, tamponing and secondary sutures cover the ground.

Dr. F. W. Murray said he is in the habit of employing drainage after amputation; he uses sterilized iodoform gauze, occasionally catgut, leaving it in for twenty-four or forty-eight hours.

Dr. B. F. Curtis then closed the discussion.

"Pa, can you tie a knot in this cord?" "Yes, of course." "Can you tie a knot in any cord?" "Yes." "Can you tie a knot in the spinal cord?" "Johnny, go to bed and keep still."

Dr. G. A. Harman, of Lancaster, Ohio, has cut the spermatic cords for enlarged prostate with satisfactory result. The prostate became atrophied as well as the testicles, and the operation was more simple than castration.

CORRESPONDENCE.

"SIMILIA SIMILIBUS."

IS IT ESTABLISHED AS A SCIENTIFIC LAW?

To the Editors of THE NEW YORK MEDICAL TIMES:

In bringing this question before your notice, the writer has been prompted by the firm belief that all true physicians are desirous that the subject of therapeutics should be established on a thoroughly scientific basis, as opposed to that of empiricism.

In the present paper let us confine ourselves to the subject of "Drug Therapeutics;" *i.e.*, the use of drugs in the treatment of disease, and to that part of the subject only which is known to the world under the name of "Homeopathy," and the principle of which is embraced in the formula, *similia similibus curantur*.

Unfortunately the name "Homeopathy" has become connected in many minds with numerous fanciful hypotheses and speculations which found their way into the "Organon" of Hahnemann, and are still to be found scattered through many of the works of those calling themselves his disciples.

These, more than anything else, have prevented that practical investigation which the subject demands after the claims put forward for it as a therapeutic measure.

If any such should read this paper, let me remind them that

"Errors, like straws, upon the surface flow;
He who would seek for pearls, must dive below."

Richard Hughes, in his "Manual of Therapeutics," writes: "Homeopathy is *prima facie* the treatment of disease by medicines selected according to the rule *similia similibus curantur*; let likes be treated by likes." And in a note he says: "I prefer this putting of the motto—which is indeed Hahnemann's original formula—to the affirmation *similia similibus curantur*, usually adopted at the present time."

In the present state of our knowledge I think it wise to state our principle as a rule of art, rather than as a law of science.

The first question which naturally arises is, What is science?

Science is defined as "exact correlated knowledge," and knowledge as "the acquaintance with any facts"; therefore, science requires, firstly, an acquaintance with facts; and secondly, their exact correlation.

In the "Organon" Hahnemann says—and I think that we can all agree with him here—"The physician should distinctly understand the following conditions: What is curable in disease in general, and in each individual case in particular; that is, the recognition of disease. He should clearly comprehend what is curative in drugs in general, and in each drug in particular; that is, he should possess a perfect knowledge of medicinal powers. He should be governed by distinct reasons, in order to ensure recovery, by adapting what is curative in medicines to what he has recognized as undoubtedly morbid in a patient."

Thus we require acquaintance with the facts of disease, with the facts of drug action, and with the correlation of these facts, and in so far as these three requirements are exact, will our treatment be worthy the name of scientific therapeutics.

Our knowledge of disease is limited according to our powers of observation, *a priori* reasoning tending to lead us into vain speculation as to the intimate nature of disease.

Let us, however, not neglect any means which may offer for the broadening of our field of observation; modern methods of physical examination, the macroscopical appearance of diseased tissues and organs as seen in the autopsy room, or the microscopical appearance as seen in the laboratory; the aids afforded by chemistry or physics, and, last but not least, the subjective symptoms.

This advice may seem superfluous, yet there are on the one hand those who, at the bedside of the patient, neglect

a careful examination—depending entirely on symptoms—and on the other hand those to whom the subjective symptoms are a very minor consideration. Let us study disease in its entirety as far as it is in our power.

Coming to the subject of drug action, the obstacles in the way of our acquiring an exact knowledge seem almost insurmountable. As the knowledge which we wish to gain relates to the action and reaction between drugs and the living organism in health, it stands to reason that experiments should be made by administering drugs to the healthy individual. This has the great advantage of giving us the morbid sensations and other disturbed functions produced by the drug, but there is the limitation, for obviously, we would hardly be justified in giving our drug until those profound changes are brought about which are the parallels of the conditions seen in the advanced stages of disease.

It is true that toxicology will help us greatly in this direction, but in these cases death may take place so rapidly that but seldom is the extent of the drug action seen. However, if special efforts were directed towards a careful and minute examination of the organs of those dying from poisoning, much valuable information might be obtained.

Unwilling as I may be to admit it, I can see no way out of the difficulty but by careful experiments carried on in the lower animals, with a view of learning the nature of those profound organic changes caused by the presence of drugs in the body.

It seems almost unnecessary to say that what we require is *exact* knowledge, but when one sees over seven hundred symptoms attributed by Hahnemann to *carbo-vegetabilis*, hurled to the ground at one sweep by the reproving of that drug carried out by the American Institute of Homeopathy, one is led to wonder what would become of the Homeopathic *materia medica* were the same process employed towards all the drugs therein mentioned. That this state of things is happily making way for a better is fully admitted, but even to-day we frequently have provings of drugs brought before our notice containing scores of symptoms powerfully suggesting a disordered imagination. Let us condemn such experiments as wholly unreliable.

As in our study of disease, so in our study of drugs, chemistry and physics may offer us material aid.

This brings us to the keystone of our scientific arch, viz., the correlation of the facts of disease and drug action, and, as I said at the beginning of the paper, we will look only at the correlation implied in the formula *similia similibus curantur*, "similars are cured by similars."

Here it is manifest that the correlation is two-fold.

Firstly, we have the general correlation that drugs cure disease; and secondly, the particular correlation that similar drugs cure similar diseases.

The first proposition, I think, hardly needs any argument in its support, for, although there may be those who have but little faith in the curative power of drugs, few would care to be without quinine in intermittents or mercury in syphilis, and if we admit the principle of the old saying: "In poison there is physic."

Coming to our second proposition—similar drugs cure similar diseases—we encounter greater difficulties, for while, as in the first proposition, *a priori* reasoning is powerless to prove or disprove it, so in the second facts must be our only argument; nevertheless, we must clearly understand what constitutes a similar.

As Dr. Sharp has pointed out in his "Essays," the words "like" and "similar" are too vague and indefinite to satisfy scientific accuracy, and suggests the word "identity," distinguishing identity of the seat of action and identity in the kind of action. In other words, the similarity between the drug and the disease consists in their effects on the living organism being identical; therefore, science requires that it be demonstrated that drugs are curative in disease, the drug and disease being, in regard to their seat of action and kind of action, identical.

As to the former, i.e., identity of the seat of action, scientific medicine recognizes the advantages to be gained by acting directly on the diseased organ or tissue, but looking at the question of the identity in kind of action we find many different opinions thereon.

I would here refer to the *résumé* of the subject given in

two lectures by Dr. Richard Hughes, and to be found at the beginning of his Manual of Pharmacodynamics, under the title of "The General Principles of Drug Action."

Speaking somewhat broadly, it will be seen that there are two main views held by different members of the profession in regard to what constitutes the basis of truth on which Homeopathy rests.

Firstly, we have the view held by Hahnemann himself, that the vital force reacting against the artificial drug disease was thereby able to overcome the natural disease. This is "substitution"—the replacing of one disease by another—but the drug disease, being temporary, disappears with the removal of the cause, leaving the body in a state of health.

This reaction of the vital force against the drug action, Hahnemann speaks of as the "after effect," or "counter effect," of drugs, and claims that it is opposite in action to the primary effect, provided that there can be an opposite.

Consequently, it is necessary that to obtain the curative virtues of this after effect, we must choose the drug whose primary effect corresponds to the disease before us. This would be simple enough could we lay our finger on a symptom and say, "this is a primary or this is a secondary effect," but that this may be difficult or even impossible the following will show:

Hahnemann, in the "Organon," says: "A conspicuous opposite or after effect is imperceptible during the action of very minute Homeopathic doses of drugs in the healthy body. Although minute doses, when closely observed, may be seen to produce a perceptible primary effect," etc.

Dr. Hughes, following Dr. Hempel, thinks that the least possible effect is reactionary, and not a primary drug effect.

Again, Hahnemann tells us that in some cases we see only the primary effect of the drug, as in the metals, etc.; and then, again, we have those alternating primary effects which may be mistaken for secondary. I think that the great difficulty of establishing our correlation according to this method will be admitted.

Secondly, we have the view so strongly insisted upon by Dr. Sharp, viz., that drugs exhibit opposite actions when given in large and small doses, both in health and disease, and that consequently, if in a disease whose manifestations are identical with those produced by a large dose of a drug a smaller dose be given, this smaller dose, acting as it does in an opposite direction, will extinguish or overcome the disease.

This is "Antipathy," and not "Homeopathy."

While many agree that in functional diseases this may hold good, there are different opinions as to its tenability in organic disease, and we should further question as to how far it applies to the acute specific diseases.

Our exact correlation does not yet seem to be established.

Finally, we have those—notably Drs. Hughes and Hale—who would apply the entire drug picture to the entire disease, making use of the knowledge of the succession of symptoms in each case. Dr. Hale, when applying the early drug symptoms to early disease symptoms would use a small dose; when the later drug symptoms correspond to the later disease symptoms he would use more appreciable doses. Dr. Hughes cannot agree with him here, but thinks that the remedy will act, in the same dose, curatively throughout the disease.

This last suggestion, as will be seen, partakes rather of the nature of a rule of art, while the two former views, while indicating the rule, attempt to establish the rationale of cure.

It would thus appear that, for the present, the decision for or against any or all of these views must rest on personal experience, and, therefore, I think we are justified in saying that *similia similibus curantur* does not represent "exact correlated knowledge;" in other words, is not established as a scientific law. To appreciate this fact, is to feel the need for extensive scientific work along the lines laid down in the "doctrines and teachings of Homeopathy," and let come what will of schools and creeds.

EDGAR A. GRAFTON, M.D.

Montreal, March 2, 1895.

OUR EDINBURGH LETTER.

To the Editors of THE NEW YORK MEDICAL TIMES:

During the last two months the Edinburgh Royal Infirmary has had an abundance of clinical material, often giving through its seven amphitheatres, daily clinics to thousands of students of surgery and allied subjects. The senior professor of surgery, Prof. Annandale, has recently finished some highly interesting lectures and demonstrations on scirrhus, and it is my pleasure to be able to give your readers a somewhat brief, and I hope, clear idea of what the representative Scottish surgeon has been teaching in this line. Pathologically it is called: Hard Spheroidal Celled Carcinoma, and generally "Scirrhus" of the Female Breast.

This variety occurs in the proportion of about 95 percent. of the breast, the remaining 5 per cent. being medullary cancers, or more commonly known as the soft spheroidal celled variety. Scirrhus is most common between the ages of forty and fifty years, and at any age thereafter. It occasionally occurs between twenty-five and forty, but is rarely met with earlier in life. Prof. Annandale has carefully studied the etiology, and has classified the influences affecting occurrence as follows:

Single, 23 per cent.; married, 72 per cent.; widows, 4 per cent.; child-bearing, 83 per cent. Injuries, 10 to 12 per cent.; chronic indurations, 9 per cent.; hereditary cancer, 29 per cent.; hereditary tubercle, 20 per cent.

He recognizes three varieties of this class of cancer.

One in which there is a limited tumor in some part of the breast in a more or less state of progression. This progression may be very rapid or very slow.

Another variety is a growth in the form of one or more masses or nodules infiltrating the breast structure and surrounding parts, and involving in its progress all the neighboring tissues. This is known as the infiltrating variety.

The "atrophic" or "chronic" variety is another form often met with, where there is little tendency to spread, and the tumor contracts after reaching a certain size.

The symptoms of scirrhus may be divided into two classes, characteristic and diagnostic.

In the early stage of the disease, the general health is good in about 80 per cent of the cases, and instances of long life in parents and grand-parents are frequent. In the later stages the "cachexia" is present in the majority of the cases. Cases of scirrhus differ in appearance and consistence, as the symptoms may be modified by the presence of ulceration, suppuration, sloughing, or by changes in the tumor itself, such as degeneration and formation of cysts, but to be generally diagnostic, we must recognize the following:

Special hardness of the tumor and of any infiltrating masses or nodules. The tumor or masses are not properly circumscribed or encapsulated. There is adhesion of the growth to the skin or surrounding tissues. The skin is often puckered or contracted, and frequently discolored at the point of adhesion. The nipple, however, may or may not be contracted.

The growth is steady, and sooner or later there is an involvement of other organs and tissues. Professor Annandale has carefully tabulated his investigations from patients received at the Royal Infirmary of Edinburgh, and has found that in 89 per cent. there is involvement of the axillary glands, and 25 per cent. in other glands. In half the cases the liver is involved, and in about a quarter, or 25 per cent., the lungs and other organs. It is rarely that the other breast is attacked.

The disease may run its course in a few weeks or months, more frequently in from six months to several years. The average duration is about four years. Most die between six months and two years. Certain conditions, especially those of chronic inflammatory induration, with or without the formation of chronic abscess and of cysts, with simple indurated tissue surrounding them, may simulate scirrhus. If there is any doubt an exploratory incision should be made, and the exact condition determined by microscopic and other examination.

The treatment may be either operative or palliative. An early and free removal of the entire breast, the whole

disease and the axillary glands, with the knife, should be made in all cases when the disease is local and can be entirely removed, and when the general health and state of the internal organs admit of an operation. The disease may be removed or destroyed by the thermo-cautery, knife, or by the application of some strong caustic, as sulphuric acid, in cases where it is important to prevent or lessen hemorrhage, or when a patient objects to the knife.

At Edinburgh the operation is as follows: An incision is made so as to expose a large flap which covers completely the whole breast, care being taken to remove all diseased skin or adherent tissue and also the nipple. The entire area of the breast is cleaned of all fascial tissue, great care being taken that none of the breast structure or growth is left behind. After the bleeding vessels in this region are secured, another incision is made along the lower border of the pectoralis major, exposing the axillary cavity. Here the glands are dissected out after securing their vessels. In some cases it has been necessary to partially and completely cut across the pectoral muscles, so as to expose the glands more thoroughly.

Before removing these glands, the axillary vein is well exposed, so as to avoid wounding it, and also that the branches joining it may be seen and secured before being divided too close to the main trunk. Sutures are of silver, catgut and strong horse hair, and often drainage is through another, but dependent, opening.

Palliative treatment consists in strict attention to general health, with a non-stimulating diet, except in cases of extreme weakness. Small and frequently repeated doses of arsenic or iodide of potassium are often indicated, and pain should be relieved by a sedative.

Locally, dry absorbent wool and soothing applications, as warm fomentations, acetate of lead and opium, or a weak solution of belladonna. When ulceration is present, a charcoal poultice, boracic acid lotion, or a solution of chloral hydrate (grs. vi. to $\frac{3}{4}$ j.), or vaseline should be used. If there is edema of the arm, careful massage and rest, and support of it by means of a sling or other apparatus. In cases of limited disease, with ulceration and bleeding or great irritation, the local disease, or as much of it as possible, may, in some instances, be removed with the thermo-cautery or by a caustic, as a temporary relief, even when the case is not otherwise suitable for operation.

Recurrence after operation may take place in or near the cicatrix, in the axillary or other glands in internal organs, or in several of these situations, and is to be treated on every successive recurrence upon the same principles as the primary disease; that is to say, to remove it, if the case is suitable.

LOUIS E. POOLE, M. D.
University of Edinburgh.

February 7, 1895.

Editors of THE N. Y. MEDICAL TIMES:

An article by Dr. W. T. Parker, page 84 of the MEDICAL TIMES for the current month, contains statements concerning Indian medical skill, which, although at variance with the ideas of many I believe to be true, and I should like to give an account of a tradition which credits the Indians with an abdominal section, with recovery, as far back as the 17th century.

A certain Von Prince, with his wife Penelope, bound for New Amsterdam, was shipwrecked or put ashore on the coast of New Jersey, just south of Sandy Hook. A party of Indians found them, killed Von Prince, disemboweled his wife and stripped them both. A friendly Indian, passing that way, seeing a naked woman lying on the beach, turned and walked backward to her and then covered her with his blanket. (Note this copy of an Oriental custom.) He then turned and lifted her, carried her to his wigwam, washed her wounds, and sewed up the large wound or wounds in the abdomen with withes of the inner bark of the willow for thread, and fish bone as needles. Penelope Von Prince recovered, was taken to New Amsterdam by the Indians, settled at Gravesend, married John Stout, an Englishman, and persuaded him and four other families to go and settle at what is now Middletown, New Jersey; she afterwards bore numerous Stouts, as the

annals of New Jersey testify, and lived to a green old age, in full possession of her faculties. When she was very old she was one day riding with her grandson, a young man, when she requested him, at the end of her narrative of personal accident, to ride close to her, put his hand in her pocket, and feel the seam in her abdomen where the Indian had sewed up the wound. He bashfully demurred, when she remarked: "Some day you may hear that old granny was a liar when she says she was cut open and sewed up by Indians, and I want you to say that you felt the seam, and tell the story to your grandchildren, as I tell it now to you." This the young man did, and any one who desires to express disbelief in the narrative should first make certain that no Stouts are present. The writer would not dare to cast discredit on the tradition. The nearest he ever came to it was to inquire the last time he heard the story, "What has all this to do with Ephraim McDowell?" The reply was: "I cannot place Ephraim, but some descendant or other of the first settlers at Middletown married into the McDowell family of Middlesex County." Dr. J. E. Stillwell, an expert on this subject, says that Ephraim McDowell was a connection of the Middlesex County family, so that the first attempt of the undersigned at derision concerning the narrative fell flat as regards his object, besides furnishing him with food for thought in a new direction.

H. H. SEABROOK, M. D.
118 East 72d St., New York, March 6, 1895.

DR. HALLOCK'S CORRECTION.

To the Editors of the MEDICAL TIMES:

In your issue of the current month I am honored with the statement of being in active practice at the age of ninety-four years. As I am indisposed to sail under false colors, or tacitly accept the undeserved credit of your announcement, I take the liberty to correct the error about my age, and state that my next birthday will be the ninety-second and not the ninety-fourth.

Grateful for the health and vigor still granted me, I deem it "better to wear out than rust out," or relinquish the duties of a loved profession while spared in health to perform them.

Cordially yours,
L. HALLOCK

March 19, 1895.

"NOTHING NEW UNDER THE SUN."

An experiment, we are informed, is being made in one of our city hospitals with a method of treating smallpox recently proposed by a Swedish writer, and said to have been tried with success in his country. It is founded on the principle that the ultra-violet rays of light are the only ones that exert a chemical action on the skin, and consists, therefore, in excluding them from the patient by using red curtains tightly drawn or red window panes. The *American Practitioner and News*, in commenting on this topic, is reminded of the fact that as long ago as the reign of Edward III., of England, the celebrated John of Gaddesden, court physician to that Prince, wrote a book, entitled the "Ross Angelica, seu Practica Medicinae," wherein the following measure is recommended in the treatment of smallpox: So soon as the rupture has appeared "cause the whole body of your patient to be wrapped in scarlet cloth, or in any other red cloth, and command everything about the bed to be made red. This is an excellent cure." Sir Thomas Watson, "The Macaulay of Medicine," denounces this as a piece of superstitious quackery, quite in keeping with the usual mistaken and injurious practice of those times. Yet now, as our contemporary remarks, "the solar spectrum tells us why John of Gaddesden made things red around the smallpox patient, bacteriology (asepsis) tells why the traditional midwife burns the hole in the compress that goes over the cord of the new-born infant; the marvellous effects of thyroid gland injected or ingested in myxoedema tells us how results may have been obtained through the administration of the viscera or glands of various animals

in some affections; while hypnotism, to say nothing of other phases of psychic science, may yet redeem from scorn the superstitious belief of the ancients in stellar strokes, demoniacal possession, doubles, ghosts, and witchcraft, and their faith in the therapeutic efficacy of charms, charms, amulets, fasts, sacred verses, and prayers." To this the devout Homeopathist might perhaps add that the results of Hahnemann's teachings should be regarded as justifying, at least to a certain extent, the long-explored "doctrine of signatures," upon which it has even been charged that they were founded.

G. L. F.

Prognostic Aphorisms: Albuminuria (Warren).—If albuminuria appears in the course of another affection and persists more than four weeks it is to be feared that albuminous nephritis will be induced and be irremediable.

The existence of albumen in the urine with a diminished amount of urea is a sign of bad omen.

There is but little hope if in the course of an albuminuria the uterine is excreted in small quantity, especially if the diminution occurs suddenly.

When the suppression of urine is total (anuria) the end is necessarily fatal.

A diminution in retinitis is a favorable sign.

Amaurosis accompanied with encephalic pain announces a fatal end, imminent and inevitable.

Acute uremia may cause death in four hours, but, as a rule, in three or five days.

The eclamptic form is less favorable than any other variety.

Microscopic study of the urine by revealing the state of the kidneys is the essential basis of prognosis.

In acute albuminurous nephritis the disappearance of hydropsy without corresponding disappearance of albumen in the urine is of grave portent.

Accidents are imminent if the abundance of albumen coincides with the diminution of the amount of urine.

Bright's disease is always fatal.

Scarlatina in its decline, accompanied with thoracic and cerebral complications due to the existence of albuminuria is of grave outlook.

The same is true of albuminurous anasarca following measles.

Phtisis and bronchial dilatation are hastened in their course by the appearance of albuminuria.

It is one of the most terrible complications of scrofula and tertiary syphilis.

Erysipelas following in the course of albuminuria is almost always irremediable.

If in the course of a suppurating hematocoele or some other chronic affection albuminuria appears, the end will be accelerated.

Albuminuria often determines abortion or premature child-birth. If the child is born alive it often dies several days after of eclampsia.—*St. Louis Med. and Surg. Journal.*

OBITUARY.

DR. N. SCHNEIDER, Professor of Surgery in the Cleveland Medical College, died on February 4, 1895, in Cleveland, Ohio.

DR. MATHEW D. FIELD, a leading medico-legal expert and surgeon to the Manhattan Elevated Railroad, died March 6th, of heart disease. Dr. Field was examiner in lunacy for the city, and all patients for the city insane asylums had to pass through his hands.

DR. DANIEL H. TUKE, whose works on insanity are in the majority of libraries, died March 6th, in London, at the age of sixty-eight years.

PROF. DUJARDIN BRAUMETZ, a most voluminous and always interesting writer upon therapeutic subjects, died in Paris, February 16th.

MISCELLANY.

—There is to be a section on medical journalism at the next International Congress.

—Dr. E. Carleton, of this city, has discovered that cider vinegar is the antidote for carbolic acid.

—Bier Wierth thinks that atropine in a small hypodermic dose is superior to all other remedies as a hemostatic.

—A late Iowa Supreme Court decision makes a physician liable for damages accruing from his having dismissed a case too soon.

—Dr. P. Filleul recommends treatment of superficial burns with picric acid. It is especially well adapted for country practice.

—As a rule, Professor Keen says, in four out of every five cases of fistula in ano, the patient will be found to be of a tubercular character.

—In puerperal convulsions, when the spasms are apparently under control, look out for a return of the spasms, if the pupil remains contracted.

—A strong man on exhibition in London, lifts two horses with their riders at the same time, the total weight being about four thousand pounds.

—The heaviest bicycle rider in the world is said to be Dr. Meldon, of Dublin, Ireland, who weighs 378 pounds. He is also an expert tennis player.

—A chair in the Chicago Medical College has been endowed for Dr. N. S. Davis, a wealthy Chicago manufacturer giving \$50,000 for that purpose.

—The City of Sydney, Australia, has imposed a fine of one pound upon any person convicted of spitting upon the floor of public buildings, or upon the street.

—A deaf and dumb doctor in this State has built up an excellent practice. This is undoubtedly due to the truth of the adage, that the less a doctor says the more he is supposed to know.

—It has been fully demonstrated by experience in maternity hospitals, that almost every woman who can bear a child can nourish it, if proper methods be used to secure this result.

—Dr. J. E. Huxley, of Maidstone, Eng., thinks he has hit upon the natural remedy for sleeplessness. It is, in brief, to curl under the clothes like a kitten, or put the head under the wings like a hen.

—The appearance of herpes on the lips during acute meningitis is a sign that the disease is non-tuberculous, but it is not always indicative of certain recovery, as it is in pneumonia and some other affections.

—Mothers, and those who have the care of children and infants, should not visit the sick. They are liable to bring back the morbid germs of disease, which are easily disseminated among children, giving rise often to serious epidemics.

—The British Museum has among its treasures an almanac three thousand years old. The days are written in red ink on papyrus in columns, and under each is a figure, followed by three characters, signifying the probable state of the weather for that day.

—“I don’t see your husband with you so much as when you were on your honeymoon,” said the clergyman, as he met an occasional attendant at his church. “Has he grown cool?” “Not if what you preach be true,” she said, coyly. “He is dead.”

—Upon the Island of Formosa, a woman is not allowed to bear a child before her thirty-sixth year, and abortionists fulfill a social law by kicking the belly of a woman who becomes pregnant before the proper age, lest the population grow too large for the island.

—Dr. Wiltrot (*Northwestern Lancet*), calls attention to the fact that melancholia is often associated with a large amount of calcium in the urine. He notes several cases of complete cure by the administration of nitro-muriatic acid, with an occasional purgative.

—An operation has been advised for the reduction in size of an enlarged stomach. An incision is made in the left side parallel with the border of the ribs, and through this the fundus of the stomach is drawn and a portion is folded inward, and the contiguous walls are sutured together, so says the *Record*.

—Pain without fever, says a prominent physician, may be severe, and may cause much suffering, but in acute attacks it is not dangerous. “If you had this amount of pain that you complain of,” he said to a patient who had hastily summoned him, “in any inflammatory disease, you would be in a raging fever; if you have no fever you need never worry.”

—Prausnitz (*Canadian Practitioner*, January 1, 1892), has made examinations of the dust taken from German railway trains for the bacillus tuberculosi. He concludes, as a result of this work, that the ordinary method of cleaning out railway passenger cars suffices to keep them so free from tubercle germs that danger to the traveling public in this respect seems to be excluded.

—The favorite beverages in England are tea, beer, and light wines, which are gradually taking the place of coffee, spirits and heavy wines. The consumption of sherry and port has decreased in the last seventeen years from 11,000,000 gallons per year to 4,700,000, while tea shows an increase of 6,000,000 pounds during the same period, and light wines of nearly 2,000,000 gallons.

—It has been discovered that the famous tree from the bark of which quinine is obtained furnishes no quinine except in malarial regions. If a tree is planted in a malarial district it will produce quinine; if it is planted in a non-malarial district it will not produce quinine. It is therefore claimed that quinine is a malarial poison, drawn from the soil and stored up by this wonderful tree.

—Vaccination matinees have become quite the fashion in Paris. Persons belonging to fashionable society co-operate in arranging to have a doctor and a cow at an afternoon tea. The company are all vaccinated from the cow. In some of the large houses on the Champs Elysees, the cow is taken up in the elevator, and is temporarily installed in the dining-room. The cards issued bear the words, “On Vaccinera.”

—A boy, fifteen years of age, living in London, spent his Easter holiday in Blackheath, where he ate thirty oranges, a whole cocoanut, and a mince pie, quenching his thirst with cider and various effervescent drinks. In the evening he had several cups of tea, and later some cake and lemonade. Before the dawn of the following day he was dead, and the coroner’s jury brought in a verdict of “death from natural causes.”

—Mr. E. B. Dunn, the New York local forecaster of the Weather Bureau, after a careful study of the epidemic of grip that occurred in this city during 1891, and comparing the variations of death rate with the changes of the weather during the same period, concludes that cold, moist weather has always the largest number of fatal cases. He says: “The higher the humidity and the more sudden the fall of temperature, the greater the number of deaths.

—The President of the British Medical Association in a recent address declared that bacteriologists had successfully demonstrated that the coincident presence of other than the specific pathological micro-organisms of any given disease rendered that disease much more grave. When streptococci invade the system along with the Klebs-Loeffler bacillus in diphtheria, the fatality is always greater than when the latter is the sole cause of the symptoms.

—Dr. C. L. Dana declares himself a firm believer in the efficacy of animal extracts. He says: “There is no more reason to doubt that there should be therapeutical properties in extracts obtained from animal organs, than that there should be such from vegetable organs. We might just as reasonably expect good therapeutical properties from the extract of a gland as from the extract of a root or a leaf, or a bean. The remarkable result obtained from the use of the thyroid gland in myxedema is of itself abundant justification of this position.”